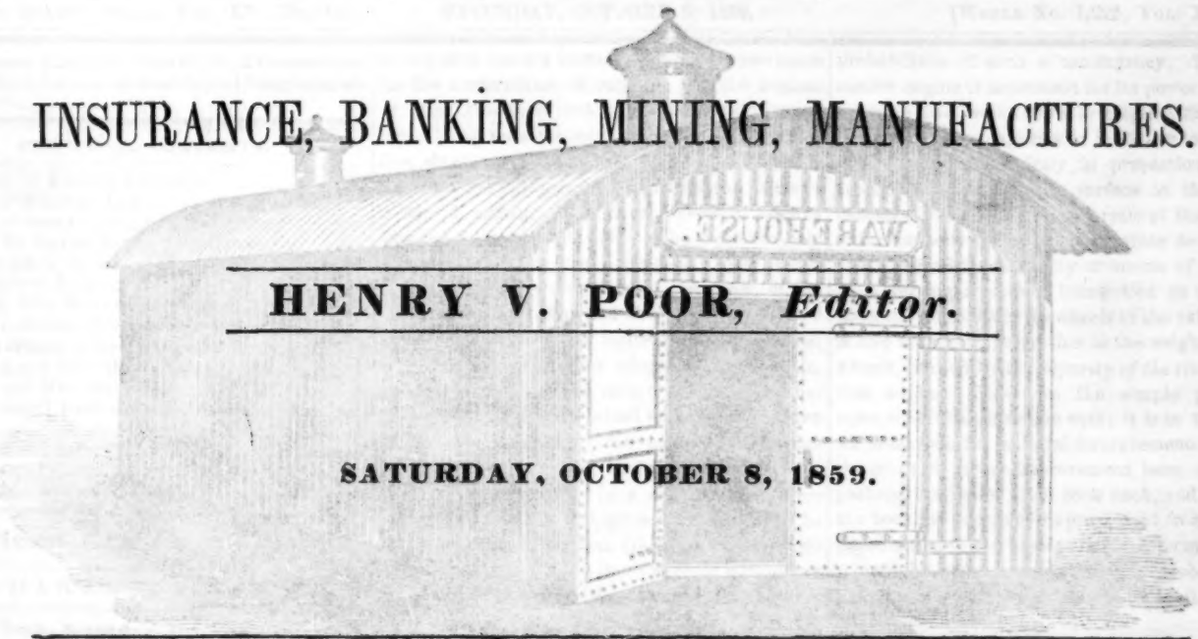
AMERICAN

RAILROAD JOURNAL.

STEAM NAVIGATION, COMMERCE, FINANCE,

INSURANCE, BANKING, MINING, MANUFACTURES.



HENRY V. POOR, *Editor.*

SATURDAY, OCTOBER 8, 1859.

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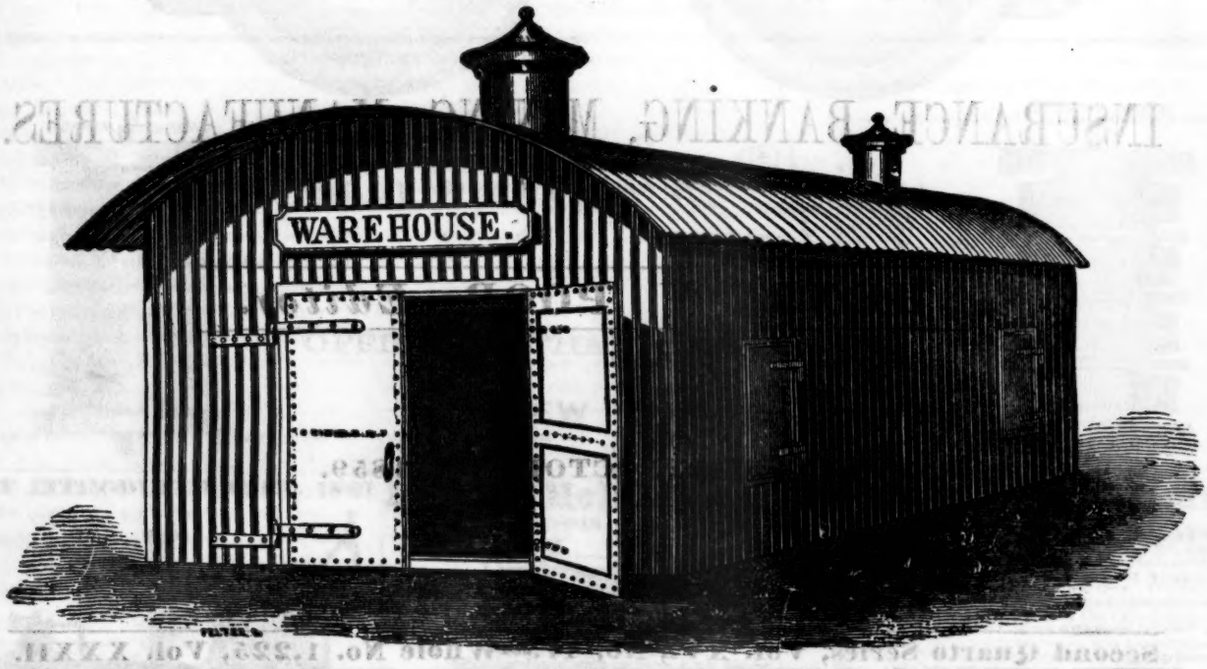

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American Railroad Journal.

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New York, Saturday, October 8, 1859.

The Gauge of Russian Railways.--The Arguments of Col. Whistler in Reference thereto.

(Continued from p. 627.)

It is true the progress of the railroad system has been very rapid within the last ten or twelve years; yet there could not have been wanting that emulation in the profession that would lead to the investigation of every available point for the improvement of the system, nor were they allowed to lose sight of this question; for as the majority of the Commission state, Mr. Tredgold early drew the attention of the profession to it. May it not, therefore, be more reasonable to attribute the reluctance to adopting a material increase of width of track to the absence of any necessity from inconvenience or ill effects in the narrower—or in other words, to a conviction from experience that the narrower has answered and does answer every purpose? I think so. The only roads that I know of greater width of track than that I propose here,—are two short ones in Scotland connected with each other, which are 5 feet 6 inches; and the reason given by the Engineer for increasing beyond the customary width in Scotland, which is only four feet six inches, was to give more space for the construction of engines; yet the engines of these roads are not of greater dimensions or power, than some on roads of only 4 feet 8½ inches. One short road in Ireland, as recommended by the Irish committee, adopted in 1836 the gauge of 6 feet 2 inches. The Great Western railway adopted their gauge in 1835. The Tsarskoe-Selo railroad adopted in 1836 a gauge of 6 feet. Those that may have been built under the order of the Government of Baden, and Darmstadt of 5 feet 3 inches, and one in the United States of 6 feet, which unusual width was adopted, I feel certain, more from a supposed future advantage, rather than any knowledge of actual advantages, or even inconvenience attending the narrower; and because it was believed that there existed a tendency to increase elsewhere. In a recent conversation with one of the ablest engineers of this road, he told me he was satisfied, (there being some 40 miles in operation,) that there were no advantages in this increase of width, commensurate with its increased cost, and this was the more serious, because it is one of the longest roads in the United States, having a line of five hundred miles.

Now since the law restricting the width in England to 4 feet 8½ inches, was repealed in 1836, there have been several roads constructed of that width, and five varying from that width, but not exceeding that which I propose here; that is five feet—yet they had the example of 5 feet 6 inches in Scotland; 6 feet here, 6 feet 2 inches in Ireland, and 7 feet in England.

This does not seem to me to justify the conclusion that there exists a general tendency from experience to go beyond 5 feet. There is another reason, and perhaps the one which operates the strongest in the minds of the majority of the commission; I know it does with all others who are in favor of wide tracks—which is an impression that the progress of improvement in the construction of engines, rather than any present positive necessity, may require an increased width of track to be availed of, and hence a desire to provide for this possible, or perhaps probable contingency.

This is a proper and wise consideration, but before we make any present sacrifice for a supposed future advantage, it it well to examine into the probabilities of such a contingency. The locomotive engine is dependent for its power and utility upon two well known principles: first for its power, upon the capacity of its boiler to generate steam, which is strictly in proportion to the amount of steam-heating surface in the boiler, limited always by the proper ratio of that surface to the capacity of the furnace grate to generate heat; second for its utility or means of applying its power to purposes of locomotion on the road, upon the adhesion of its wheels to the rails, which is also strictly in proportion to the weight of those wheels, limited by the *capacity of the rails to bear this weight*. These are the simple principles upon which this machine acts; it is to this alone we must look for material improvements; and for the probable future improvement here, we cannot perhaps do better than look back, and see what has been the course of improvement from its first introduction to the present day. This may throw some light upon the possibility or probability of the necessity of a wider track to avail of future improvements.

The locomotive engine was first introduced on railroads in England in 1804-38 years ago, but was encumbered with contrivances to provide for a supposed deficiency in the *hold*, or *adhesion* of the wheels upon the rails, to effect its locomotion, that it was scarcely avoidable for any useful purpose till stripped of all these contrivances, (of which there were several very ingenious ones,) in 1814, 28 years ago, and left to act simply, *as it has ever since, and does now*, by the adhesion of the plain surfaces of the wheels upon the rails.

This engine, thus improved, continued to be introduced and employed carefully without material alteration until 1829, just previous to the opening of the Liverpool and Manchester railway. So far as respects the mode of applying its power for the purposes of locomotion, it was as perfect as the present engine. The limit to its effect up to this time, 1829, was the want of capacity in the boiler to generate steam fast enough to supply the cylinders for a greater velocity than some six miles per hour. Even this engine was capable of moving the maximum load due to its weight, which is as much as the present engine can move; but the deficiency in the evaporating power of the boiler rendered it impossible to move with any

speed. The dimensions of its boiler had been increased with a view to improve the deficiency to the capacity of the rails to bear the weight.—Still the velocity was limited to about 6 or 8 miles per hour.

In 1829, Mr. R. Stephenson produced an engine for trial on the Liverpool and Manchester railroad, in which he had introduced an entirely new mode of creating and augmenting the capacity of boilers to generate steam, by a series of small tubes to convey the heat from the fire space through the water to the chimney, whereby he was at once enabled to produce the maximum effect due to the dimensions of the boilers, and thus, by this step, enabled that road to commence its operations in 1830 with useful effect, at velocities of at least 20 miles per hour; in fact, the maximum velocity due to the power, (weight,) of the engine, and, I may say, the *present engine*, limited, as it was then to a weight deemed to be all that the rails could bear. The only material alteration from that time to this, as affecting the power of the engine, has been to increase the capacity of the rail to bear weight, and keep the weight of the engine up to this capacity. Now, was this great step in the improvement of the evaporating power of the engine in 1829, effected by *increased dimensions* of the boiler requiring *increased width of space* to accommodate it? No—quite the reverse. This great, and I may say, only material improvement, (for the others since have been minor, and followed as the natural consequences of it,) had for its object the producing of a greater evaporating power with *diminished dimensions* of boiler, which was accomplished. Thus the very first engine built upon this principle being limited by the conditions of the trial, weighed only 4¼ tons, yet had an evaporating power greater than all others up to that time, weighing from 8 to 10 tons.

Another important effect produced by this improvement, in 1829, was the great economy of fuel with which this extraordinary power was produced. As this system of tubes leads *at once* to the means of adopting the most useful ratio of the heating surface in the boiler to the capacity of the furnace, (grate surface,) to generate heat; and if I except the simplifying of the machine, by stripping it of all unnecessary parts; the various changes; the various ratios of the heating and grate surfaces, with a view to arrive at the maximum effect; the improvement in the manufacture of the materials and the improvement in the mechanical skill in putting them together. None of these I venture to say were ever limited by want of more space in the width of track than I propose.

The only alteration in the application of steam power to railroads since 1830, has been improvement in the *mode of using it*, rather than an *improvement in the machine itself*—that is, by increasing the power of the engine, (not improving it,) which has always been attended by a proportional increase of weight, and increased strength of rail to bear this weight; and thus the progress of improvement has been principally to increase the capacity of the rail to bear this weight and increase the power of the engine, (not improve it,) by keeping its weight up to this capacity until we have arrived at that point where the commission are unanimous in agreeing with me, viz, that a rail of sixty pounds to the yard is all that can be necessary to serve the purposes of the St. Petersburg and Moscow railroad. Now if engines can be built of the maximum power due to this weight of rail with the width of track I propose; of which there can be no doubt, for they are built of this power for tracks of even less width, is it necessary to increase the width for this purpose? I must say, *no*. Is it probable that in future improvements, (not increase of power,) but increased dimensions requiring increased width of track will be the result? Was this the result in the great step in the improvement in 1829?—*No*; on the contrary, as I have said before, this improvement had for its object—it was a necessary condition to its being an improvement—to produce greater useful effect with less dimensions, and this was the great point accomplished. It would hardly be considered an improvement in this locomotive machine to increase its bulk and weight, without increasing its power; and since this power is now limited by the weight of the rail—and I know engines can be built for a five feet track of the maximum power that the 60 lbs. rail can bear. I cannot see, that present necessity, or probable future advantages require a greater width than *five* feet.

Having thus attempted to show that neither the result of experience, nor probable future advantages, call for a greater width of track than I propose, I will now proceed to examine the reasons given by the majority of the Commission for their preference of the *six* feet track over that of *five*.

1st. That an increase of width of one foot allows diameter of the wheels to be increased without danger, thereby lessening the friction and resistance in the same proportion. In addition to what I said on this subject in my communication of the 9th September last, to which I respectfully refer, I would observe that if the example given by the majority of the Commission, of a comparison between 2½ and 3 feet, they suppose I intend to limit the diameter of the wheels to 2½ feet, they have misunderstood me. Three feet is the usual size of wheels used on tracks of 4 feet 8½ inches, and no larger are used on 6 feet tracks; and I would repeat here, that while I admit the principle of diminished friction with increased diameter, all other things being equal, and am satisfied that any decrease of friction within the limits of a practical increase of the diameter of the wheels, may with equal safety be effected on the 5 feet as the 6 feet track, I cannot believe it will ever be found necessary or advisable to increase the diameter much, if any, beyond the usual practice of 3 feet.

At high velocities of *passenger* trains, friction forms such a small proportion of the whole resistance, that any slight diminution of it by the increase of the diameter would be scarcely felt; and at the slow velocities of *goods* trains, there can be no danger in lifting the centre of gravity to avail of any advantages of a practical increase of diameter of wheel. But the *dis*advantages of any material increase must not be lost sight of. Among these disadvantages are, that large wheels cannot be made as strong as small ones, for one of the principles of diminished resistance in large wheels is their greater facility of increased leverage in greater length of spoke to pass over obstacles. It is for this reason that small wheels are used almost always for the leading wheels of engines intended for great velocities.

Again, to make the comparison just between large and small wheels for relative frictions, all other things must be equal; but in practice, and especially when the widths of track differ, all other things cannot be equal. To be so, the capacity of the cars must be equal, their strength must be equal. The only thing to differ is the diameter of the wheels. But in two cases of equal capacity, the one on the 6 feet track must, of necessity, have longer axles, which to be of equal strength, must also be larger, therefore heavier. The wheels to be larger, must be heavier, to be equal in strength. These and other additions to the weight of car of equal capacity for a 5 feet track, will very much diminish the advantages that might arise from an increased diameter of wheel, when all other things are equal, viz: an increased capacity of cars—greater convenience of stowage, and greater proportion of goods carried to weight of cars.

The capacity of cars is limited by the practical facility of handling them in the various operations of loading and arranging them in trains at the several stations; and since this necessarily limited capacity is easily attained on the 4 feet 8½ inches track, if an increased capacity was a natural consequence of the increased width of track, it is not required.

The width of the cars used on tracks of 4 feet 8½ inches is now the maximum, *without an increased space between the tracks;* and if it were necessary or desirable to increase the capacity of the cars beyond that now in practice, it would be much better, in my opinion, to increase their length than their width. This would not require additional space between the tracks, and the increased resistance from the atmosphere is much in proportion to the width of the car.

As to the greater convenience of stowage, there cannot be any practical difference between the width now in use on roads 4 feet 8½ inches, (between 8 and 9 feet in goods cars,) and any probable increase of width likely to take place on the 6 feet track; and which cannot take place *without an increased width of space between the tracks*. Again, since the capacity of the car is limited, as I think I have shown by causes independent of the width of track, (the maximum being attainable on the 4 feet 8½ inches track,) the only *necessary difference* between cars of *equal capacity* for 5 and 6 feet track, is the increased length, and consequent *increased weight of axles for the latter*. Thus the proportion of weight of car to goods carried, must be greater on the 6 feet, than on the 5 feet track.

3d. Increased steadiness to engines and cars, consequent diminished wear and tear, and greater safety. This and the 4th reason relating to the same thing, constitute the most important considerations connected with this subject; and I would here state that if in all my experience of railroad traveling, I had ever known a single accident, the cause of which could be attributed to a want of width in the track, or when the cause was most evident, and such as would have produced the effect with any width of track, I would at once say it was necessary to increase the width. But I have not, and my experience has been much on roads and with cars, where any defect of this kind

would, if ever, be exhibited. Many of the roads that I am familiar with, are extremely crooked, slightly built, and often in very bad order; certainly in much worse order than I should ever expect to see the St. Petersburg and Moscow road. Cars of extreme width, as wide as those on the Tsarskoe Selo, or even on the South Western, much higher, high enough for the tallest man to stand upright in; yet I have never known a car to run off, except where the cause was evident, and which would have produced the same effect with any width of track. That cars have never run off the Tsarskoe Selo road is certainly no evidence that it is because that track is 6 feet, for cars have run off a 6 feet track; (and, if I mistake not, have run off even a 7 feet track, the Great Western,) it may be the evidence of good and careful management; but it must be borne in mind that the Tsarskoe Selo road is a short, level, (nearly so,) and straight line, where any defects or obstacles likely to throw cars from the track are always clearly in view. I never knew cars to run off any track under such circumstances.

One of the advantages claimed in these two last reasons for the 6 feet track, seems to be based upon the increased width of track *without increased width of car*—that there may be greater width of base to stand on in proportion to width of car; yet *increased width of car* is claimed as an advantage in the preceding reason. Now, while I admit that on a 6 feet track the effect of any deviation from the level of the rails transversely to the track will be less felt than on the 5 feet track, I think the difference is practically nothing. Let us see, for example. Suppose two tracks, the one 6 feet, the other 5. We will suppose the centre of gravity of the cars or engines, in both cases 5 feet high; higher than it is, or even need be. Now suppose the rail on one side to be depressed one inch, two inches, and three inches. This, I think, may be considered as the maximum derangement of the level of the rails. What is the difference in the change of position, or motion of the centre of gravity, on the two tracks? In the first it is 17-100 of an inch; in the second, 34-100 of an inch; and in the third, it is only one-half an inch. But suppose an extreme case of a depression of 6 inches, the difference is still but one inch. I think I may be justified in attaching little importance to these differences.

5th. The increased facilities for constructing the engines, keeping them in order, making them stronger, and the most important thing—the increased economy of 13 per cent. in fuel, according to the calculations of the Engineer Inhin.

As to increased facilities for constructing engines and keeping them in repair, I think I may say positively, of my own knowledge, that they do not require a width greater than I propose, 5 feet; and as to the strength of the machine, I am equally positive, that so far from this being a natural consequence of a 6 feet track, extra pains must be taken to make the engines for a 6 feet track *as strong* as one for a less width.

I regret that the paper of the majority of the Commission, does not explain the principle upon which Mr. Inhin bases his calculations; but I have examined his book, and from what he says himself, I hardly think he claims to be authority. But that the economy he shows for increased width, is the result of calculation, based upon data, he acknowledges to require confirmation. He starts with the object of finding the proper ratio of the fire surface in the boiler to that in the furnace; assuming that heretofore adopted is not correct; but whether to decrease the one, or increase the other, he admits his doubts, and assumes it would be best to increase the surface in the boiler, and taking it for granted that the only way to do this is to increase the diameter of the boiler, he proceeds to show, that in proportion to the increase of the diameter of the boiler, there will be an increased proportion of fire surface in the boiler, and because there will be an increased proportion of fire surface in the boiler, there will be increased space to apply more tubes, and hence economy of fuel results in this proportion. I now admit that the ratio of fire surface in the boiler to that in the furnace is not what it should be to produce the greatest economy. It is not proposed to increase the power of the engines by any alteration of this ratio. That is not necessary, the power being limited by the weight, is now all that a 60 lb. rail will bear.

It is the economy of this power that is to be effected by this alteration. It is the extravagance of too much heat for the surface to be heated that requires attention; therefore, the furnace should be diminished, instead of increasing the dimensions of the boiler.

This ratio, however, may not be established with the nice calculation of Mr. Inhin. Experience is a much better guide in this matter. Different kinds of fuel may require a different ratio, and experiment has brought this very near the maximum effects; for I have often seen ill effects by changing the ratio of these surfaces backwards and forwards.

But admitting it was necessary for economy of fuel to increase the surface in the tubes, it can be as well done by increasing the length of the boiler, as the diameter, and better too; for length of tube will retain the heat in the boiler longer. Boilers are safer, because stronger as their diameters are *diminished;* consequently weaken as their diameters are increased.

If the results of Mr. Inhin's calculations were to be relied on, my objections to an increased width of track beyond 5 feet, viz: *unnecessary extra cost* could be removed, because he could show an absolute economy instead of unnecessary cost attending it; and as he shows the same economy between 6 and 7 as between 5 and 6, I could see no reason why 7 feet should not be preferred to 6; and if all the reasons given by the majority of the Commission in favor of the 6 feet track holds good, it seems to me that it must follow that the 7 feet would be better than the 6.

But I must differ entirely with Mr. Inhin, and have endeavored to show why I do not consider the advantages of the 6 feet track, as shown by the majority of the Commission, sufficient to justify the extra expenses attending it.

The 6th and last reason given by the majority of the Commission, I have endeavored to answer in the first part of this paper, and I will close by saying that whatever width may be adopted, the distance between the tracks will not admit of reduction, without serious injury to the road. I consider 6 feet as the *very maximum;* therefore, no allowance should be made for a diminution of the extra cost of constructing the 6 feet track as mentioned in N. B. No. 2 of the estimate accompanying the paper of the majority of the Commission.

Which is respectfully submitted
By Your Excellency's
Most Ob't Serv't
G. W. W.

Journal of Railroad Law.

PROXIMATE AND REMOTE NEGLIGENCE.

We noticed in our last issue the case of Button *vs.* the Hudson River Railroad company. This case is interesting not only as deciding the point we then alluded to, but the further question as to the bearing of *proximate*, and *remote* negligence upon the issue.

The plaintiff in an action, brought to recover against the defendants for the latter's negligence, must show that he, himself, is entirely free from negligence. Where there is merely a preponderance of negligence, upon the part of the defendant, be it ever so great a preponderance, it will not avail the plaintiff, and his own negligence debars him from recovery. A case might easily occur in which the operation of this rule would be manifestly unjust. For instance, suppose a farmer living near the line of a railroad, carelessly allows his gate to get out of repair and as a consequence of this his cattle wander out upon the public highway, and following the highway some distance, come upon the track of the railroad. While they are quietly grazing upon its side, a train approaches, and the driver of the engine, instead of being at his post, looking out, is engaged somewhere else, and thus on account, not only of the cattle being there negligently allowed to stay upon the track, but on account of the gross negligence of the engineer, the cattle are run over and several of them killed.

Here is negligence on both sides, but on the part of the plaintiff it is slight, while on the part of the defendant it is gross; according to the rule above stated, however, the plaintiff could not recover: not even if the engineer was intoxicated, and utterly unfit for his position.

The application of the rule to such a case as this might operate hardly. But in such cases a distinction between *proximate* and *remote* negligence, is applied by which the injustice which would often be caused by the unqualified application of the general rule is avoided. The decision in Button *vs.* the Hudson River Railroad company establishes the following rules:—

1st. Where the negligence of the plaintiff, at *the time of the accident, in any way concurred* to produce it, the plaintiff cannot recover.

2nd. Where the negligence of the plaintiff is *proximate*, and the defendant's *remote*, no action can be sustained.

3rd. But where the negligence of the defendant is proximate and that of the plaintiff remote, the action may be sustained.

The supposed case of the farmer and his stray cattle is fully protected by this last proposition. If it were decided by the rule first mentioned, alone, the decision would be against the plaintiff, but following the latter rule he would be allowed to recover.

It will be remembered that the facts brought out upon the trial of Button's case were as follows. The plaintiff intestate had been drinking at one or more dram shops during the evening previous

to the accident; about five minutes after he left one of them, which was in West street, and near the track of the defendants' road, the cars passed and he was killed. His body was found lying straight across the track, the head upon one rail and the legs upon the other.

The driver of the car which ran over Button, testified that he was driving at the rate of four miles per hour: that he could see the leading horses and could have seen a man if standing upon the track: that at the place where the accident occurred the leading horses suddenly jumped sideways from the track, and seeing something upon the track, the driver applied the brakes, but before he could arrest the car, it had passed over the deceased. There was some evidence tending to show that the car was driven at a higher speed than four miles an hour.

The plaintiff obtained judgment, and the defendant appealed. The following was the decision.

HARRIS, J.—The verdict of the jury was clearly against evidence, even as the law was given to them by the judge who presided at the trial. The deceased, when first seen after he left Lynring's oyster saloon, was lying directly across the track, with his head on one rail and his feet upon the other. How long he came there, or how long he had been there, no witness was able to state. All that was proved was that he had been drinking at the oyster saloon, and had left there but a few minutes before he was found in this position. In view of these facts the jury were told, very properly, that if the deceased strolling there while in a state of intoxication, had laid himself down before the cars or had tumbled down unable to support himself from intoxication, then, unquestionably, it was his negligence to which the disaster was to be attributed; and if the driver did not see him in time to avoid him, the defendants were not liable. This part of the charge was unobjectionable. If it was his own fault that he was lying on the track in the position in which he was first discovered and he was not seen in time to stop the car before it reached him, then the deceased was himself the cause of his own death and the defendants were blameless. The testimony warranted no other finding. But then the judge proceeded to open before the minds of the jury a field of conjecture. He stated that the deceased had a right to be where he was found, and the question for the jury was, whether he was there through any fault of his own, or whether he was passing over and was knocked down by the cars; that if he was passing prudently and properly across the track, and was run over by the cars, and the defendant had omitted the use of such precautions and care as, if used, would have prevented the disaster, the plaintiff was entitled to a verdict. This p rt of the charge was erroneous. The testimony presented no such question. The deceased was found lying upon the track. It was not the defendants' fault that he was there. All that the court was called upon to do was, to instruct the jury as to the rule of law applicable to the case, as it was presented by the testimony. But to this part of the charge though erroneous, there seems to have been no exception.

In another part of the charge, the jury were told that the defendants were only liable in case the catastrophe was brought about by their culpable negligence, and without any negligence upon the part of the deceased "directly contributing to produce the catastrophe." To the use of the word "directly" there was an exception. The difficulty with this part of the charge is, that it leaves the question vague and indefinite. What were the jury to understand by negligence directly contributing to produce the catastrophe? The same force of expression pervades the entire charge. The fact that the deceased was found lying on the track was uncontroverted. There was no evidence to show that it was any fault of the defendants that he was there. It should have been assumed, nothing appearing to the contrary, that it was his own fault.

Why, then, ask the jury to say whether there was any negligence upon the part of the deceased which *directly* contributed to the accident? There was no such question in the case. The deceased was found lying on the track. This fact was as much the proximate and immediate cause of his death as the fact that the defendants' cars passed over his body. The death was the combined result of both causes. The jury should have been instructed that, this being the case, the only question for them to decide was whether, by the exercise of reasonable care and prudence, after the deceased was discovered, the driver might have saved his life. * * * * * * * * *

The fact that a man was on the wrong side of the road, does not necessarily constitute a defence in an action against another by whom he was run over; but if his being there was the *immediate* cause of the accident, it is a defence, even though the person by whom the injury was committed was himself at fault. One man cannot by his own negligence, cast upon another the necessity of extraordinary care. * * * * * * *

Where the negligence of the plaintiff is proximate, and that of the defendant remote, no action can be sustained. In such a case the plaintiff himself is the immediate cause of the accident. This rule embraces all that class of cases where, at the time of the injury, the plaintiff was chargeable with a want of proper care. On the other hand, where the negligence of the defendant is proximate, and that of the plaintiff remote, the action may be sustained. The question then is, whether, it being conceded that the plaintiff was not without fault, the defendant might, by the exercise of reasonable care and prudence, at the time of the injury, have avoided it.

In the case now before us, the jury, instead of being instructed, in substance, that the defendants were liable unless the "negligence of the deceased directly contributed to produce the catastrophe," should have been told that, if the negligence of the deceased, at the time of the accident, in any way occurred to produce it, the plaintiff could not recover.

The verdict of the jury shows that they must have been misled by the charge. Upon the evidence before them, they could not have said that the deceased was not chargeable with negligence, amounting to utter recklessness, in placing himself in the position in which he was first discovered. If in his senses, as he must be presumed to have been, he caused his own destruction. Under these circumstances, he must be regarded as having co-operated with the defendants to produce his death. Unless the jury could be made to believe that, after the deceased was discovered, the defendants, by reasonable care, could have avoided the fatal result, they were not liable. That they could have done this, has not been pretended. The testimony would scarcely warrant such a conclusion.

I am of opinion, therefore, that the judgment should be reversed, and that a new trial should be awarded, with costs to abide event.

The St. Lawrence and the United States.

(*From Le Journal de Quebec.*)

England gives nearly a million sterling to steamship lines. She gives nearly £60,000 to the company that plies between Dover and Calais, where the passengers increase in fabulous numbers. The subsidy given to that line and to the Galway one has attracted so much public attention, that the Government has appointed a Committee of Inquiry in the House of Commons, of which Mr. Cobden is is President. The Committee before the prorogation of the House could but examine the question of the subsidy granted to the Dover and Calais line by the Derby Government, to pronounce it fraudulent, and to demand its annulment. After such a grave verdict, two witnesses were examined on behalf of Canada, complaining of undue favors granted to the Galway and Cunard lines—the Commissioner of Public Works in Canada, the Honorable John Rose, and Mr. Wilson, ex-Vice President of the Board of Trade, London, who is about to leave for the East Indies, charged with the almost superhuman task of doing away with the deficit which is yearly produced between the Revenue and the Expenditure of that vast country.

We cannot cite from the official documents, because the testimony of which we have just spoken is secret, even to the House of Commons, and is known only to the members of the Committee of Inquiry; but as diplomatic secrets always leak out, questions like this, which interest in such a degree an Empire and its Dependencies, cannot long remain enclosed in the four walls of a Committee room, without queitly oozing out, and allowing people to form a complete idea of what they consist. Such are the reasons which give us confidence to assert that what we are about to say is substantially correct.

* * * * * * * * * *

If we are well informed, Mr. Rose has represented to the Committee of the House of Commons:—

"1. That when the Cunard contract was made in 1839, it was with the avowed intention of facilitating communication with the mother country and its American dependencies, that the contract made it obligatory on the steamers to call at Halifax, and stipulated for a branch steamer between Halifax and Quebec during the season of navigation on the St. Lawrence, but that branch service was soon abandoned with the consent of the Imperial Government, and the Canadian mails were obliged to pass over American territory.

"2. That in 1846, the Cunard line became a weekly one, with the promise that the intermediate steamers should proceed to New York without calling at Halifax.

"3. That if the Canadian Government did not object to this arrangement, it was that then Canada had no national railway line, nor seaport open the year through, and further it did not desire to place any obstacles in the way of a desirable enterprise, which was then considered as an essay.

"4. That the postal question, despite its importance—since Canada has furnished a fourth of all the letters carried by the Cunard line—is not the only one that should be considered, and that it is still a question of the future commercial prosperity of Canada and the great British interests which have relation to the country.

"5. Canada, to develope the commerce of the St. Lawrence, has within the last few years expended its labor and revenue on the construction

of canals, uniting the great lakes and permitting sea-going vessels to penetrate as far as Chicago and other lakes of the West. Numbers of light-houses shine over our waters from the extreme west of the Provinces to Labrador and the Atlantic, a distance of 1,600 miles, without charge to commerce, but pressing heavily upon the revenues of the Province.

"6. That Canada maintains, at considerable expense, a powerful line of steamers on the St. Lawrence, who tow at almost nominal charges the vessels that frequent the river.

"7. That for all these objects has been contracted nearly all our direct debt, which amounts to about £7,000,000.

"8. That as soon as the Victoria Bridge is completed, Canada will possess a line of railway eleven hundred miles long without a single break of gauge, apart from a multitude of other roads which furrow it in all directions, and place it in immediate communication with the great West, New Orleans, and all parts of America, and make it the shortest and most direct route between Europe and all parts of the Western and Southern States of the neighboring Union.

"9. That the Province has given several millions to these enterprises, and the capitalists of England have disbursed on their part about twenty millions sterling; but the heavy subsidies granted to the Cunard line have hitherto had the effect of making all these efforts and these sacrifices useless, by lowering the price of freight in American ports, and in attracting to the American railways, canals and ports, to the detriment of our own canals and railways, to such an extent, that in 1856 more than six million tons of merchandise passed by American channels, while five hundred thousand tons only passed through our canals and over our railways.

"10. That this state of things forced the Canadian Government to establish a direct postal service, semi-monthly, between the St. Lawrence and Liverpool in summer, and monthly between Portland and the latter place in winter.

"11. That this communication, incomplete as it was, so fully demonstrated the advantages of the St. Lawrence route, that the Government has established a weekly line, by paying an annual subsidy of £55,000 currency.

"12. That our line is composed of eight steamships, collectively costing £650,000, and making shorter passages than the Cunard.

"13. That the Cunard line is principally devoted to the commerce of Boston and New York, to the prejudice of the Canadian postal service, and this Province should have been consulted when the question of renewing the Cunard contract arose and taken part in the negotiations, that consequently it was with surprise and regret that it indirectly learned that the Cunard contract had been renewed until the year 1868, at a subsidy of £176,000 per annum, without counting certain contingent allowances which will probably amount to £40,000 sterling, and this at the moment when the Canadian Government was organizing a like service.

"14. That we further learnt with greater pain, that the Imperial Government had also granted a subsidy to the Galway line, solely to the profit of American commerce.

"15. That it is very doubtful whether the Canadian line can long sustain the contest against such advantages furnished by the Imperial Government to the American ports, and that we, Canadians, still nourish the hope that we may yet obtain efficient aid from the Government of the empire.

"16. That a chartered company has but lately offered to carry the mails to British Columbia across the North American Provinces, and that the Canadian Government has offered the use of its steamships and railways, for a sum scarcely proportioned to the service required, but still useful to the Canadian line of steamships.

"17. That Canada is evidently not so well-treated as the other colonies, as regards postal relations to Great Britain, since the latter gives heavy subsidies to the lines of Australia, South America, the West Indies, and the Mediterranean, and that the Canadian mails are first carried through a foreign country, and thence into the Provinces, at an expense which presses heavily upon the revenue, whilst it could be easy to prove that the St. Lawrence is the best and quickest route between Liverpool and Boston, and New York in summer, and Portland in winter."

As we have already said, the committee could not conclude its inquiry, and consequently place its opinion before the House of Commons; but by virtue of a rule of that house, the same committee will continue inquiry next session, and a great deal may be expected from its good will, because, if we are rightly informed, the manner in which all the questions were proposed to the witnesses, indicated the tendencies of the committee, and a desire to render justice to Canada.

There are some who believe that the Cunard contract and the Lever contract will be declared fraudulent by the committee, and be consequently annulled. In that case, the question will arise, whether the favors of the Imperial Government will be divided amongst these two lines and the Canadian one, or whether the third are to be left to their own resources. In the adverse case, we have reason to hope that the Imperial Government will come to our assistance in one form or other.

* * * * * * * *

The *London Times* has made its powerful voice heard, and gives us its powerful support against monopolies to the profit of the stranger.

It appears that Mr. Rose has incontestably established before the committee the superiority of the St. Lawrence route over that of the United States, and that the committee were perfectly convinced; however, Mr. Cobden had just arrived from Canada and the United States, and knew that the Commissioner of Public Works was not exaggerating in anything.

The Imperial Government will be all the more disposed to come to the assistance of Canada, as its word has been clandestinely violated by the renewal of the Cunard contract, the Colonial Secretary having, in a despatch to the Governor General in 1856, all but promised that as soon as the Cunard contract expired, pecuniary aid would be given to the Colony.

We may say that success has crowned the labors of our Minister of Public Works in England, as much as he could desire, and as much as the actual condition of things and the advanced state of the session of the Imperial Parliament would allow him. There was not enough time for action, but there was enough for an expression of good will, and this was manifested in all quarters, in the regions of power, as much as in the interior of the Legislative Committee rooms, as well as in the great and powerful press of London. We may therefore look upon the cause as won, and the *Globe* should once, at the least, compliment the Ministry for having well acted and succeeded. But justice does not sail in those waters, because we remember, that once he was surprised into saying, it was in 1857, that if the Commissioner of Crown Lands did a certain thing he would merit the gratitude of the country, but when it was demonstrated that he had done it, the *Globe* became humiliated, for having had in a fatal moment, a generous sentiment, and spoken the language of justice.

Taxation in New York City.

The taxes assessed on property in the City of New York are equal to the whole amount levied in the great State of Ohio. The figures are as follows:

	City of New York.	State of Ohio.
Real Estate	$370,954,930	$590,285,947
Personal Property	172,968,192	250,514,084
Total	$543,923,122	$840,800,031
Taxes assessed	$9,860,926	$9,756,659

Cincinnati, with one-third the population of New York, is taxed only $1,079,412; and Philadelphia, with two-thirds the population, $2,549,598.

Of the tax in New York $1,328,006 is for the State, $1,986,885 for the County, and $6,546,034 for the City proper. This does not include the immense amounts raised for improvements, etc.

Trade of the United States with Canada.*

(*An abstract from the U. S. Treasury Reports on Commerce and Navigation.*)

I.

EXPORTS OF DOMESTIC PRODUCTS.

Year Ending 30th June.	In American vessels.	In For'gn vessels.	Total Domestic.
1849	$1,254,145	$1,066,178	$2,320,323
1850	2,944,608	1,696,843	4,641,451
1851	3,585,571	2,250,263	5,835,834
1852	2,083,918	1,921,045	4,004,963
1853	1,789,512	2,216,000	4,005,512
1854	5,998,708	4,511,665	10,570,373
1855	3,449,118	6,501,646	9,950,764
1856	5,044,645	10,150,143	15,194,788
1857	4,539,086	8,485,622	13,024,708
1858	5,980,631	7,682,834	13,663,464
10 years	$36,669,942	$46,482,239	$83,152,181
Average	3,666,994	4,648,223	8,315,218

II.

EXPORTS OF FOREIGN PRODUCTS.

Year ending 30th June.	In American vessels.	In For'gn vessels.	Total Foreign.
1849	$979,492	$934,909	$1,914,401
1850	700,936	588,434	1,289,370
1851	945,163	1,148,143	2,093,306
1852	1,753,631	958,466	2,712,097
1853	2,300,547	1,523,040	3,823,587
1854	3,926,390	2,863,943	6,790,333
1855	5,656,302	3,113,278	8,769,580
1856	3,811,291	1,877,162	5,688,453
1857	2,826,816	723,371	3,550,187
1858	2,675,819	689,970	3,365,789
10 years	$25,576,387	$14,420,716	$39,997,103
Average	2,557,638	1,442,071	3,999,710

III.

EXPORTS OF AMERICAN AND FOREIGN PRODUCTS.

Year ending 30th June.	In American vessels.	In For'gn vessels.	Grand Total.
1849	$2,233,637	$2,001,087	$4,234,724
1850	3,645,544	2,285,277	5,930,821
1851	4,530,734	3,398,406	7,929,140
1852	3,837,549	2,879,511	6,717,060
1853	4,090,059	3,739,040	7,829,099
1854	9,925,098	7,375,608	17,300,706
1855	9,105,420	9,614,924	18,720,344
1856	8,855,936	12,027,305	20,883,241
1857	7,365,902	9,208,993	16,574,895
1858	8,656,450	8,372,804	17,029,254
10 years	$62,246,329	$60,902,955	$123,149,284
Average	6,224,632	6,090,295	12,314,928

IV.

TOTAL IMPORTS FROM CANADA.

Year ending 30th June.	In American vessels.	In For'gn vessels.	Grand Total.
1849	$659,237	$821,845	$1,481,082
1850	2,027,569	2,257,901	4,285,470
1851	2,360,174	2,596,297	4,956,471
1852	2,278,603	2,311,366	4,589,969
1853	2,714,256	2,563,860	5,278,116
1854	2,378,934	4,342,605	6,721,539
1855	4,777,774	7,404,540	12,182,314
1856	7,198,749	10,289,448	17,488,197
1857	9,422,726	8,869,108	18,291,834
1858	6,622,502	4,959,069	11,581,571
10 years	$40,440,524	$46,416,039	$86,856,563
Average	4,044,052	4,641,603	8,685,656

* An abstract of the Canadian Reports for the same years, will be found in the JOURNAL of the 30th July last. Together, these tables fully illustrate the operations of the Reciprocity Act of 1854.

V.

SHIPPING ENTERED—TONS.

Year ending 30th June.	American.	Foreign.	Total.
1849.....	906,813	537,697	1,444,510
1850.....	889,755	447,372	1,337,127
1851.....	1,013,275	514,383	1,527,658
1852.....	774,878	591,569	1,366,447
1853.....	1,376,927	748,034	2,124,961
1854.....	857,489	674,188	1,531,677
1855.....	897,133	870,597	1,767,730
1856.....	1,191,716	1,217,712	2,409,428
1857.....	1,240,159	1,105,356	2,345,515
1858.....	1,344,717	922,920	2,267,637
10 years ..	10,492,862	7,629,828	18,122,690
Average ..	1,049,286	762,982	1,812,269

VI.

SHIPPING CLEARED—TONS.

Year ending 30th June.	American.	Foreign.	Total.
1849.....	870,204	563,910	1,454,114
1850.....	919,515	456,527	1,376,042
1851.....	927,013	516,883	1,443,896
1852.....	765,945	589,345	1,355,290
1853.....	1,062,086	734,029	1,796,115
1854.....	880,941	648,239	1,529,180
1855.....	890,017	903,502	1,793,519
1856.....	1,113,734	1,212,698	2,326,432
1857.....	1,133,584	1,104,850	2,238,234
1858.....	1,364,580	1,012,358	2,376,938
10 years ..	9,947,619	7,742,141	17,689,760
Average ..	994,761	774,214	1,768,976

Grand Trunk Railway.

We learn from the Detroit *Tribune* that this company have recently purchased grounds in that city for the erection of extensive buildings. The tract bought is on Michigan Avenue, north of the Toledo track and east of the Central, and adjoins both. It was selected for the convenience of transhipping freight to and from both the Central and Southern roads. There is to be a brick engine house and machine shop 185 feet in length, with rear projections and extensions of an average width of 100 feet. This will be for the storing and repair of engines, and other machinery of the road. There will also be in it a turn-table. Then there are to be two transhipment sheds or warehouses, each 500 feet long and 15 feet wide. These will have roofs projecting on each side 10 feet, so that a train of cars can run directly under them, and goods be protected from any storm while being unloaded into the warehouse. A passenger depot 108 feet long and 30 feet wide, of brick, and finished off complete, is also to be put up for the accommodation of passengers. Four baggage sheds, 60 feet long by 40 wide, and 800 feet of platform, comprise the list of contemplated improvements at this point, but it is no small list. The roofs of all the buildings are to be of slate. The work is already begun, and in two months more, these buildings will stand complete!

North-Eastern Railroad.

We are pleased to notice the condition of this road. Judging from appearances it must be doing a good business. We see a considerable quantity of cotton going to the depot, and we understand that the receipts so far show a larger increase of bales over last year up to this time. Much of the travel and freight that in former days went to Charleston on the South Carolina Railroad from Clarendon, Sumter and Darlington Districts, is now carried on this road, it being the cheapest and most expeditious route.

The North eastern Railroad must eventually become one of great importance. When the Charleston and Savannah road is added on at one end and the Cheraw and Coal-Fields road at the other, making an inseparable link through North Carolina, South Carolina and Georgia, with the other roads that intersect it, the importance of our road and the business accruing to it, will render the road very profitable to the stockholders.—*Kingstree Star.*

Pittsburg, Fort Wayne and Chicago R. R.

The following statement will show the movement of freight during the six months ending June 30, 1859, compared with the corresponding period of the previous year:—

EASTWARD.

	Tons moved. Local.	Tons moved. Through.	Tons moved one mile. Local.	Tons moved one mile. Through.
1859	32,996	36,514	2,587,489	7,020,834
1858	25,505	38,259	2,344,173	5,586,406
Increase...	7,491	.....	243,316	1,434,428
Decrease ..	....	1,745	.....	....

WESTWARD.

1859	37,493	37,868	2,767,930	7,293,956
1858	15,740	28,257	1,397,596	4,282,972
Increase...	21,753	9,611	1,370,334	3,010,984

EASTWARD AND WESTWARD.

1859	70,489	74,382	5,355,419	14,314,790
1858	41,245	66,516	3,741,769	9,869,378
Increase...	29,244	7,866	1,613,650	4,445,412

From the above it will be perceived that the increase in the local tonnage has been about 70.9 per cent., and in the through tonnage a trifle more than 10.8 per cent.; in the aggregate of 37,110 tons, or at the rate of 34.4 per cent.

The following will show the movement of passengers during the past half year, compared with the same period last year, viz:—

EASTWARD.

	Number of passengers. Local.	Number of passengers. Through.	Number carried one mile. Local.	Number carried one mile. Through.
1859	82,219	19,093	3,144,842	4,249,450
1858	74,773	18,854	2,450,729	3,643,690
Increase..	7,446	239	694,113	605,760

WESTWARD.

1859	85,716	20,025	3,462,697	4,368,070
1858	75,354	25,421	2,638,692	5,163,686
Increase..	10,362	.....	824,005	.....
Decrease..	....	5,396	.....	795,616

EASTWARD AND WESTWARD.

1859	167,935	39,118	6,607,539	8,617,250
1858	150,127	44,275	5,089,421	8,807,376
Increase..	17,808	....	1,518,118	.....
Decrease .	....	5,157	.....	189,856

The increase in the number of local passengers was 11.8 per cent., and the decrease in the number of through passengers, 11.7 per cent.; in the aggregate an increase of 12,651 passengers, or at the rate of 6.5 per cent.

The following will show the result of an analysis of the freight and passenger traffic of the first half of the present year, viz:—

	Number of miles averaged by each ton of freight. Local.	Number of miles averaged by each ton of freight. Through.	Number of miles averag'd by each passenger. Local.	Number of miles averag'd by each passenger. Through.
1859.....	76.0	192.4	39.3	220.0
1858.....	91.0	148.4	33.9	199.0
Increase ..	..	44.0	5.4	21.0
Decrease..	15.0	..	..	..

	Revenue per ton per mile. Local. cts.m.	Revenue per ton per mile. Through. cts.m.	Revenue per passenger per mile. Local. cts.m.	Revenue per passenger per mile. Through. cts.m.
1859.....	02.4	01.5	03.0	02.1
1858.....	02.4	02.0	03.0	02.3
Decrease..	..	00.5	..	00.2

4. TABLE *showing the receipts, etc., per mile run, and the ratio of specific expenses.*

Years.	Total receipts p. mile run.	Tot. expenses p. mile run.	Total net rec'pts p. mile run.	Ratio of expendit's to tot. rec'pts.	Repairs of road, etc.	Repairs of roll'g stock.	Cost of operat'g.	Miscellan's expenses.
1849.....	183.92	80.54	103.38	43.79	24.25	17.94	22.95	34.84
1850.....	178.14	79.03	99.11	44.01	21.58	18.86	23.42	36.11
1851.....	174.78	77.17	97.61	44.16	22.54	18.90	24.84	34.18
1852.....	158.00	77.44	80.56	49.01	26.24	18.67	28.69	31.39
1853.....	160.99	82.17	78.82	51.04	22.96	21.84	23.75	31.43
1854.....	178.28	105.64	72.64	59.25	27.74	21.49	23.62	27.14
1855.....	183.00	121.04	61.96	66.14	32.15	20.29	22.53	24.96
1856.....	206.22	119.58	86.64	57.98	30.96	22.93	21.04	25.06
1857.....	201.06	114.10	86.96	56.74	32.10	21.36	21.49	24.96
1858.....	179.93	94.28	85.65	52.39	30.16	18.71	21.98	29.15
Average.....	1,804.32 180.43	950.99 95.09	853.33 85.33	524.51 52.45	270.71 27.07	200.99 20.09	228.86 22.88	299.22 29.92

5. TABLE *showing the cost, capital, receipts, expenditures, etc., per mile of road.*

Years.	Cost of road and equipment.	Liabilities per mile. Capital stock.	Liabilities per mile. Funded debt.	Liabilities per mile. Floating debt.	Total receipts per mile.	Total expenses per mile.	Net receipts per mile.
1849.....	$63,880	$33,140	$34,281	nil.	$8,640	$3,779	$4,861
1850.....	64,117	33,140	34,281	nil.	8,813	3,910	4,903
1851.....	64,052	33,140	34,281	nil.	8,712	3,847	4,865
1852.....	64,052	33,140	34,281	nil.	8,622	4,226	4,397
1853.....	64,052	33,140	34,281	nil.	9,815	5,005	4,809
1854.....	64,052	33,140	34,231	$238	11,351	6,726	4,625
1855.....	60,597	29,734	33,629	813	10,795	7,140	3,655
1856.....	60,597	29,734	31,638	2,078	12,228	7,091	5,137
1857.....	62,230	29,734	32,527	2,559	11,029	6,259	4,770
1858.....	62,825	29,734	34,829	1,408	9,817	5,144	4,673
Average.....	630,454 63,045	317,776 31,777	338,009 33,800	7,096 709	99,822 9,982	53,127 5,312	46,695 4,669

Western Railroad of Massachusetts.

Statement showing the operations of the Western Railroad for the 10 years ending November 30, 1858.

1. TABLE *showing the cost of construction and equipments, earnings, etc.*

Years.	Cost of r'd and equipment.	Length of road. Main.	2d track & sid'gs.	Equiv. in single track.	Liabilities of Company. Paid-up capital	Funded debt.	Floating debt.	Miles of r'd op'r'd, inclus. road leased.	Total miles run by locom. with trains.	Carried one mile. Number of passengers.	Tons of freight.	Gross earnings. Pass'ger traffic.	Freight traffic.	Tot., incl. mails, etc.	Repairs & operating expenses.	Net earn'gs or rec'pts over expenditu's.	Dividends on stock.
1849....	$9,926,951	155.4	59.7	215.1	$5,150,000	$5,319,520	nil.	155.4	730,491	21,006,521	25,317,146	$561,575	$745,393	$1,343,810	$588,322	$755,487	$412,000
1850....	9,963,708	155.4	59.7	215.1	5,150,000	5,319,520	nil.	155.4	768,764	21,941,398	25,206,308	590,743	747,520	1,369,513	607,549	761,964	412,000
1851....	9,953,758	155.4	60.3	215.7	5,150,000	5,319,520	nil.	155.4	774,609	22,582,614	23,304,050	603,207	715,363	1,353,894	597,756	756,138	412,000
1852....	9,953,758	155.4	61.6	217.0	5,150,000	5,319,520	nil.	155.4	848,002	23,187,053	23,724,070	615,480	685,062	1,339,873	656,678	683,194	334,750
1853....	9,953,758	155.4	61.6	217.0	5,150,000	5,319,520	nil.	155.4	947,382	27,488,944	28,153,554	693,290	786,215	1,525,223	778,487	746,736	360,500
1854....	9,953,758	155.4	61.6	217.0	5,150,000	5,319,520	$37,000	155.4	989,432	28,684,552	32,284,823	756,503	924,973	1,763,944	1,045,240	718,703	360,500
1855....	10,495,505	173.2	61.6	234.8	5,150,000	5,824,520	141,900	173.2	1,021,630	29,012,447	35,541,725	763,037	1,007,793	1,869,673	1,236,659	633,013	360,500
1856....	10,495,505	173.2	61.6	234.8	5,150,000	5,479,020	360,059	173.2	1,027,018	29,719,425	38,605,615	812,880	1,207,788	2,117,982	1,228,219	889,763	886,250
1857....	10,778,281	173.2	79.5	252.7	5,150,000	5,633,735	443,140	173.2	950,103	29,939,200	31,286,514	808,977	1,007,185	1,910,342	1,084,118	826,223	412,000
1858....	10,881,281	173.2	95.1	268.3	5,150,000	6,032,520	248,800	173.2	944,951	24,634,700	33,043,106	637,642	968,516	1,700,293	890,930	809,363	342,442
	102,356,263	1625.2	662.3	2287.5	51,500,000	54,886,915	1,225 899	1625.2	9,002,382	258,196,854	296,466,911	6,842,734	8,795,808	16,294,547	8,713,958	7,580,584	3,792,942
Average.	10,235,626	162.2	66.2	228.7	5,150,000	5,488,691	122,589	162.5	900,238	25,819,685	29,646,691	684,273	879,580	1,629,454	871,395	758,058	379,294

2. TABLE *showing the cost of repairing and operating the road, rolling stock, etc.*

Years.	Maintenance of road, etc. Repairs of road, bridges, fences, etc.	Renewal of iron.	Repairs of stations, aqued'ts, etc.	Removing snow & ice.	Total cost includ. incidentals.	Rolling stock, tools, etc. Engines & tenders.	Passenger cars.	Freight cars.	Total, incl. gravel cars.	Operating engines and trains. Coal and wood.	Oil.	Waste, etc.	Total cost of operating.	Miscellaneous. Wages to employees.	Salaries & office expenses.	Taxes, insur'ce, gratuit's, damages, &c.	Tot. cost & charges.	Grand total cost of repairs and operating.
1849....	$77,032	$48,537	$14,405	$2,730	$142,705	$47,554	$16,191	$41,806	$105,552	$114,285	$19,023	$1,734	$135,042	$159,301	$26,356	$19,364	$205,021	$588,322
1850....	80,254	38,844	9,491	2,557	131,146	47,123	17,419	50,108	114,651	123,351	16,981	1,945	142,277	175,327	25,156	18,990	219,473	607,549
1851....	87,507	32,300	12,118	2,911	134,838	42,949	17,258	52,811	113,020	126,142	16,636	2,736	145,514	144,441	27,883	32,060	204,384	597,756
1852....	108,714	47,425	13,355	2,848	172,343	48,208	16,729	57,659	122,597	131,235	21,787	2,598	155,621	147,366	24,933	33,817	206,117	656,678
1853....	99,352	65,149	13,071	1,196	178,769	63,041	35,774	71,268	170,083	161,580	20,492	2,862	184,935	177,061	23,003	44,637	244,701	778,487
1854....	157,411	121,209	9,480	1,910	290,011	101,120	25,225	98,397	224,742	214,285	29,078	3,512	246,875	215,590	22,717	45,304	283,612	1,045,240
1855....	162,652	216,906	16,604	1,372	397,535	111,503	36,244	103,083	250,831	243,713	31,469	3,953	279,135	221,181	27,197	60,777	309,155	1,236,659
1856....	150,908	194,039	19,039	16,250	380,238	129,450	30,548	121,663	281,661	224,659	30,360	3,523	258,542	235,438	48,053	24,285	307,776	1,228,219
1857....	152,620	163,200	17,062	16,040	348,921	98,268	27,979	105,325	231,573	202,767	26,718	3,508	232,994	213,550	23,358	33,720	270,628	1,084,118
1858....	136,061	140,410	15,073	7,205	268,750	71,616	17,638	77,506	166,760	171,311	20,587	3,722	195,620	203,574	19,975	36,249	259,798	890,930
	1,212,511	1,038,019	139,698	55,019	2,445,256	760,832	241,005	779,626	1,781,470	1,713,329	233,131	30,093	1,976,555	1,892,829	268,631	349,203	2,510,665	8,713,958
Average.	121,251	103,801	13,969	5,501	244,525	76,083	24,100	77,962	178,147	171,332	23,313	3,009	197,655	189,282	26,863	34,920	251,066	871,395

3. TABLE *showing the cost (in cents) per mile run by locomotives with trains, reduced from Table No. 2.*

1849.....	10.54	6.63	1.97	0.37	19.53	6.51	2.21	5.72	14.45	15.64	2.60	0.24	18.49	21.80	3.61	2.65	28.06	80.54
1850.....	10.44	5.06	1.23	0.33	17.06	6.13	2.26	6.52	14.91	16.04	2.21	0.25	18.51	22.81	3.27	2.47	28.54	79.02
1851.....	11.29	4.17	1.56	0.37	17.40	5.55	2.22	6.82	14.59	16.28	2.15	0.35	18.79	18.65	3.59	4.14	26.38	77.17
1852.....	12.82	5.59	1.57	0.33	20.32	5.49	1.97	6.80	14.46	15.47	2.57	0.31	18.35	17.38	2.94	3.99	24.31	77.44
1853.....	10.48	6.88	1.38	0.12	18.87	6.65	3.77	7.52	17.95	17.00	2.17	0.32	19.52	18.58	2.53	4.71	25.83	82.17
1854.....	15.91	12.25	0.96	0.19	29.31	10.22	2.55	9.93	22.71	21.66	2.94	0.35	24.95	21.79	2.29	4.58	28.67	105.64
1855.....	15.92	21.23	1.62	0.14	38.91	10.91	3.54	10.09	24.55	23.85	3.08	0.38	27.32	21.65	2.66	5.95	30.26	121.04
1856.....	14.69	18.89	1.85	1.58	37.02	12.60	2.97	11.84	27.42	21.86	2.96	0.35	25.17	22.92	4.47	2.36	29.97	119.58
1857.....	16.06	17.17	1.79	1.69	36.72	10.34	2.94	11.09	24.37	21.34	2.81	0.36	24.52	22.47	2.45	3.55	28.48	114.10
1858.....	14.39	11.68	1.58	0.78	28.44	7.58	1.86	8.20	17.64	18.13	2.18	0.38	20.70	21.53	2.11	3.84	27.49	94.28
	132.56	109.55	15.52	5.91	263.58	82.10	26.34	84.60	193.05	187.34	25.69	3.24	216.32	209.58	30.12	38.26	277.99	950.98
Average..	13.25	10.95	1.55	0.59	26.35	8.21	2.63	8.46	19.30	18.73	2.56	0.32	21.63	20.95	3.01	3.82	27.79	95.09

4. TABLE *showing the receipts, etc., per mile run, and the ratio of specific expenses.*

5. TABLE *showing the cost, capital, receipts, expenditures, etc., per mile of road.*

Cincinnati Stock Sales.

BY KIRK & CHEEVER.

For the week ending October 4, 1859.

BONDS.	Per cent.	
Little Miami, 1st Mort.	6s	85 and int.
Covington and Lexington, 2d Mortgage	7s	60
Ohio & Miss., D., Construction	7s	25
Cinc., Ham. and Dayton, 2d Mortgage	7s	84
Indianap. & Cincinnati, do. do.	7s	82½
Do. do. Dividend		65
STOCKS.		
Cincinnati, Hamilton & Dayton		70
Columbus and Xenia		84
Indianapolis & Cincinnati		50
Little Miami		86½

Railroad Earnings.

The following is a statement of the earnings of the Buffalo, New York and Erie Railroad (Buffalo to Corning), for the month of September, 1859, compared with the same month of last year:

	1858.	1859.
Passengers	$19,051 81	$16,503 10
Freight	38,379 80	37,177 28
Other sources	1,540 78	1,540 17
Total	$58,977 17	$55,218 55
Decrease		$3,759 23

The earnings of the Hudson River Railroad, for

September, 1859, were	$156,972 18
Do. 1858	140,871 92
Increase	$16,100 26
For the fiscal y. end'g Sept. 30, 1859.	$1,849,658 34
Do. do. 1858.	1,640,882 66
Increase	$208,775 68

The receipts of the New York and New Haven Railroad for September, 1859, were:—

From Passengers	$100,901 58
From Freight	15,500 00
Total	$116,491 58
Less dues on other roads	25,937 55
Net receipts	$90,554 03
Receipts for Sept., 1858	70,344 71
Increase (equal to 22 per cent.)	$20,209 31

The earnings of the Chicago and Rock Island Railroad for September, 1859, were. $114,788
September, 1858 89,111
Increase. $25,677

The receipts of the Virginia Central Railroad for August, 1858 and 1859, were—

	1859.	1858.
Passengers	$50,334 47	50,052 89
Freight	41,027 24	34,037 54
Express	986 88	557 88
Mails	1,967 50	1,967 30
	$94,316 09	$86,615 81
Increase		$7,700 28

The traffic of the Great Western Railway of Canada for the week ending Sept. 23, 1859, was as follows:

Passengers	$27,054 19
Freight and live stock	14,917 44
Mails and sundries	1,453 50
Total	$43,425 13
Corresponding week of last year	47,863 64
Decrease	$4,438 51

The receipts of the Grand Trunk Railway of Canada for the week ending Sept. 24, were $51,585 50
Week ending Sept. 25, 1858. 43,058 63
Increase $8,526 86
Total traffic from July 1st $535,716 71
Same period last year 492,928 90
Increase $42,787 81

The receipts of the Cleveland and Toledo Railroad for September were—

	Sept. 1858.	Sept. 1859.
Freight	$29,703	$24,058
Passengers	43,292	59,325
Total	$62,955	$83,383

The September earnings of the Illinois Central road were:

1859	$242,000
1858	218,000
Increase	$24,000

The receipts at the Land office were $55,400.

American Railroad Journal.

Saturday, October 8, 1859.

Western Railroad.

We give on the preceding pages a statement showing the results of the operations of this road for a period of 10 years.

The general result is an unusually favorable one. The earnings have been very nearly divided between net earnings and expenses—the road in the meantime having been fully maintained. The cost of iron used in repairs has, however, been very large, exceeding, very nearly, twice the average of other leading roads. The cost of renewals for iron on the Reading Railroad for the past 10 years has equalled only five cents per ton per mile—a tonnage six times greater than on the Western road. The cost of iron used in repairs of track on the Boston and Worcester road, with a much larger tonnage than the Western, has averaged six and a-half cents per ton per mile. We hope the Western Railroad Company will furnish some explanation of the extraordinary excess in this particular.

The increased mileage has been due to the purchase of the Hudson and Berkshire Railroad, and the increase in the construction account to the addition to the double track, and large additions to the equipment.

Street Railroads of New York and Brooklyn.

In the RAILROAD JOURNAL of 23d of April last, we printed an article on the *Street Railroads* of New York and Brooklyn, showing the result of their operations for 1857; and in view thereof, urging the importance of a comprehensive system, with reduced rates of fare, in opposition to the numerous *five* per cent. schemes which speculators are now seeking to fasten upon the public. The statement published showed, conclusively, that the railroads of New York City earned for the year named more than 33 per cent. on their *actual* cost, and that at a fare of four cents per passenger they would yield at least 15 per cent. net on such cost. We consequently argued that before any further grants were made, to be used, really, for the purpose of public plunder, that an adequate system for the whole city should be first planned, and then disposed of to parties who would offer the most favorable terms. The danger that then threatened was removed, for a time, by the adjournment of the legislation. On the re-assembling of this body, a large number of isolated schemes will be certain to be pressed upon it, with all the pertinacity which unscrupulous speculators, instigated with the hope of making a large sum of money, always display. For the purpose of keeping this subject before our citizens, and showing them the value of the grants which are so recklessly squandered, we give the following tabular statement, the result of the operations of our city roads for 1858:

Names of roads.	Length in miles.	Total cost.	Cost per mile.	Cost of operation, 1 year.	Receipts from passengers.	Rec'pts from other sources.	Total receipts from all sources.	Net receipts.	No. of passengers carried.	Cost per pass., in cents.	No. of miles run by cars.	Cost per mile run, in cents.	Net receipts per cent. on cost of road.
Brooklyn City	20	$1,038,839	$52,000	$288,771	$385,291	$24,705	$409,996	$121,225	7,705,839	3.74	1,994,185	14.48	11.67
8th Avenue	5	756,142	151,228	177,753	338,410	.....	338,410	160,657	6,768,203	2.62	1,028,143	17.29	21.35
6th "	4	855,957	213,989	178,226	280,617	.....	280,617	102,391	5,612,357	3.17	950,572	18.75	11.98
3rd "	6	1,378,090	229,682	242,811	397,273	5,781	403,055	160,244	7,945,462	3.05	1,460,000	16.63	11.62
2nd "	8	1,006,403	125,675	119,704	225,232	2,225	227,457	107,753	4,504,645	2.65	†900,000	13.30	10.72
Totals & aver'ges.	43	$5,034,431	*$117,000	1,007,265	1,626,823	32,711	1,659,535	652,269	32,536,506	3.10	6,385,899	*15.93	*13.00

* Average. † Estimated, not given in report.

The cost of 43 miles of road is represented, in the statement, to have been $5,034,431, which is equal to $117,000 per mile. This calculation includes the Brooklyn City railroads, which cost $52,000 per mile, which is far below the average for the New York City roads. The nominal cost of these equals about $174,000 per mile. The Third Avenue Railroad is put down as having cost $230,000 per mile. One-fourth of this sum would have paid the cost of constructing the road, and all the property belonging to it of every kind, reckoning everything except the track, at the valuation placed thereon by the company. The same remarks, with some small deductions, apply to the other New York roads. The cost of graduation and masonry of the Eighth Avenue Railroad is put down at $484,699 for 5 miles of road. The

actual cost of these 5 miles did not exceed, probably, $24,000 per mile, which is about one-quarter the amount charged. As stock has been issued for the full amount of the *nominal* cost of this road, the profit of this transaction, on the track alone, is over $400,000, on which our citizens are paying an interest at the rate of 12 per cent.! for the privilege of hanging by the *strap* in overcrowded, dirty, and ill-ventilated cars.

There were carried the past year 32,536,506 passengers upon these roads at a cost of 3.1 cent per passenger, yielding a profit of $619,558; to which, if we add sales of manure and receipts from other sources, we have a clear net income of $652,269, equal to about 15 per cent., upon their enormous fictitious capital, or at least 30 per cent. upon their actual cost. Separating the 23 miles of New York roads from the Brooklyn City roads, and the fare that 25,000,000 passengers carried on the former, at a cost of 2.9 cents per passenger, yielded a profit of 2.1 cent per passenger, or a total of $531,000—equal to 13½ per cent. on their represented cost of $3,995,592—*or about* 40 *per cent. on their actual cost.* In the article of April 23, already referred to, it is stated that "there can be no doubt but that the reports for 1858 will exhibit a business which would pay at least 40 per cent. upon their actual cost." The result has proved the correction of this estimate.

The following is a comparison of the operations of 1857 and '58:

Comparison of Operations of the Street Railroads of New York and Brooklyn for years 1857, '58, *not including Fourth Avenue Railroad.*

Year.	Cost of operation.	Receipts from passengers.	Rec'ts fr'm other sources.
1857	$1,051,369	$1,587,581	.....
1858	1,007,265	1,626,823	$32,711
Differences	$44,104 Reduction.	$39,242 Increase.	$32,711 Increase.

Year.	Total receipts.	Net receipts.	No. of pass'gers carried.
1857	$1,587,581	$536,212	31,783,068
1858	1,659,534	652,269	32,536,506
Differences	$71,953 Increase.	$116,057 Increase.	753,438 Increase.

Year.	Cost of each pass. in cents.	No. of miles run by cars.	Cost per mile run in cents.	Net rec'ts pr. ct. on cost.
1857	3.3	6,420,444	16.37	11.3
1858	3.1	6,332,889	15.93	13.0
Differences	0.2 Red'tion.	87,555 Red'tion.	0.44 Red'tion.	1.7 Inc'se.

From this it will be seen that the total cost of operating has been reduced $44,104, while the total receipts have increased $71,953. The net receipts have therefore increased $116,057. The number of passengers carried has increased 753,438. The cost per passenger has been reduced 2-10 of a cent, and the cost of running a car one mile .44 of a cent. That successive improvements in the management and operation of these roads will still further reduce the expenses, as the business increases, is quite certain. The greater the travel, the less is the cost per passenger—hence this item is not the true criterion by which to judge of the economy of future management.

The real test is in the cost of running a car one mile. This, as before stated, has been reduced nearly one-half cent—a very important item, when we consider that the total number of miles run is six and a third millions.

But without anticipating or making allowances for any further reductions of cost of operation, and basing our calculations upon the business of 1858, the following is the result:

At a 4 cent rate, the profit per passenger would be 1.1 cent, which, on 25,000,000 passengers, would give a total of $275,000—equal to 20 per cent. on $1,375,000, which is all that the 23 miles of railroad *actually cost.* Can any demonstration be clearer that the public of New York are *giving away* yearly over $300,000 to these corporations, for the privilege of hanging up by straps in their badly constructed vehicles? Shall we permit such a system to be not only perpetuated, but extended? That Street Railroads are a public necessity, no one who reads the figures in the tables can for a moment doubt. Incredible as it may appear, it is no less true that the business upon these roads, not including the 4th Avenue, is equivalent to carrying every man, woman and child, in these two cities, 32 *times each year in the cars.* With such facts staring us in the face, it would be preposterous to say that they are not required. The extent to which they are used proves conclusively that, with all their impositions, they could not be dispensed with, and that their adoption must be universal.

The growth of the city and its business is such that within the next five years, twice or three times the number of miles of railway that we now have will be necessary. We believe that many miles of additional roads could now be profitably employed; but when the privilege of constructing them is granted, we hope to see them put up at auction and allotted to such parties as, under good and sufficient guarantees, will agree to carry passengers comfortably and safely at the lowest rate of fare.

Richmond and Danville Railroad Extension.

A meeting of gentlemen residing upon the line of, and interested in, the proposed extension of this road to the State line, was held in Wentworth, Rockingham Co., N. C., on the 29th ult. The Board of Trade, of Richmond, was also represented by delegates sent for that purpose. It is proposed to connect at the State Line with the Coal Fields Railroad, for which a charter has been obtained to run through the counties of Rockingham, Stokes and Forsythe, in North Carolina. Much enthusiasm was evinced by those in attendance. Numerous addresses were made, all tending to show the importance of the proposed extension, and its bearing on the trade of that section of country. It was shown that Richmond was the best tobacco market in the country, and that it was for the interest of that portion of North Carolina to be in direct communication with that city. A charter for a more direct road had been asked, but the legislature of North Carolina had refused it, upon the ground that it would divert trade into Virginia. A charter for a more circuitous route had however been obtained, and they intended building the road, even though it should benefit another State. $250,000 of the stock had been subscribed, and 5 per cent. of the amount paid in, besides a guaranty from the citizens of Stokes Co. to grade the road through their county. The representative of the State's interest in the R. & D. road pledged the full co-operation of the directors in that road, and urged the importance of united action in the matter. The company is to be organized on the 5th of November.

Hartford and New Haven Railroad.

The income of this company for the year ending August 31, 1859, was as follows:

From Passengers		$397,567 76
" Freight		283,713 09
" Rents, mails and express		42,179 44
		$723,460 29
And the expenses were:		
Repairs of road & bridges,	$82,726 14	
Wood, coal and oil	68,059 73	
Materials and labor on engines and cars	54,068 82	
General expenses, taxes, insurance, etc.	40,503 89	
Salaries, labor and transportation expenses	91,660 20	
Station repairs, etc.	3,115 57	
Lost and damaged goods	2,059 10	
		342,193 45
Net earnings		$381,266 84
Less interest	$57,198 16	
Charged to depreciation	10,000 00	
		67,198 16
Surplus		$314,068 68

The receipts of the company from all sources during the year were $844,772 10; and the disbursements $687,579 63. The dividends paid amounted to $232,902. The cash on hand at the commencement of the year was $121,031 81. At the close of the year the balance was $157,192 47.

The whole number of passengers transported over the road during the year, was 469,772.

The number of miles run by passenger trains was 209,500; by freight trains, 92,563; by wood and gravel trains 12,700—total 314,763.

The gross income of the road exceeds that of the preceding year $95,215 04.

The road and equipment have been kept in good repair; and the trains have been run with regularity, and entire freedom from accident to passengers. A new passenger depot has been built at Windsor Locks; and a new passenger and freight depot at New Haven is under contract to be completed during the fall. Some of the bridges have been rebuilt, while others have received thorough repairs.

The suit commenced against the New York and New Haven railroad company has not yet come to trial. The sum in dispute $71,000 is included in the contingent fund.

The following is a general view of the affairs of the company, September 1, 1859:—

Capital stock	$2,350,000 00
964 bonds issued	964,000 00
Reserved fund	150,000 00
Contingent fund	245,400 21
Profit and loss	206,568 68
Dividend declared unpaid	5,382 00
Credit to Tomlinson Bridge Co.	8,864 56
Debts due by the company	2,217 04
	$3,932,432 49
Construction	$3,108,018 77
Real estate	62,727 68
Tomlinson bridge stock	102,888 67
Equipment	254,000 00
Materials on hand	132,502 78
Debts due the company	115,102 17
Cash on hand	157,192 47
	$3,932,432 49

Locomotive Department of the Illinois Central Railroad.

The cost of maintaining and operating the locomotive department of the Illinois Central railroad for the month of August was as follows:

Miles run by passenger trains		79,002
Do.	freight do.	62,477
Do.	construction do.	13,372
Do.	wood do.	3,389
Do.	switching do.	20,629
Total miles		178,869
Pounds of waste used		1,944
Gallons of oil	do.	1,431
Cords of wood	do.	2,968
Tons of coal	do.	894
Wages of enginemen and firemen		$6,800
Repairs of engines		9,708
Value of oil and waste		1,291
Do. wood and coal		14,404
Cleaning engines		1,131
Total cost		$33,336
Cost of oil and waste per mile run, in cents.		.72
Do. wood and coal	do.	8.05
Wages of enginemen and firemen	do.	3.80
Cost of repairs	do.	5.42
Cleaning engines	do.	.63
Total cost in cents per mile run		18.62
Average number of cars per train		9
Do.	miles to pint of oil.	15.61
Do.	do. cord of wood.	48.94
Do.	do. ton of coal	39.75

The value of wood on tender is rated at $4.31 per cord; of coal $1.80 per ton.

Re-building, superintending, teaming and other expenditures appertaining to repairs are included in the above aggregates.

The cost of the different items for July and for the six months ending June 30, is as follows:—

	For July.	For the half-year.
Cost of oil and waste	.77	.81
Do. wood and coal	8.19	8.93
Wages of enginemen and firemen	3.98	3.88
Cost of repairs	4.98	5.57
Clearing engines	.63	.66
Total	18.55	19.85

New York and Erie Railroad.

1st Report of the Receiver.

Received, Aug. 16, from company		$3,006
Gross receipts to Sept. 1	$181,598	
Gross receipts in Sept.	419,206	
		600,621
Miscellaneous arrearages		20,411
Total		$624,038
Paid operating expenses, current and in arrear, to Oct. 1	$352,488	
Bills for back supplies	51,453	
Other bills and rents in arrear	81,973	
Instalment on old judgments	10,000	
Bills for iron in arrears	19,210	
Bills for supplies	69,197	
		584,321
Cash balance on hand		$39,717

We learn from the counsel of the Receiver that he is likely to make his first payments on the over-due mortgage coupons—the May coupon on the 1st mortgage having precedence—as early as November, or in the course of that month, which is a month earlier than expected when he took charge of the property.

Taunton Locomotive Company.

This company are now prepared with increased means and facilities to take advantage of the improved condition of railroads, to supply, at short notice, engines of the character which have given this establishment a first rate reputation. The locomotives turned out by it have, in all cases, as far as we can learn, given not only entire satisfaction, but have elicited high commendation for their performances, on all roads where they have been used. Among these may be named, the Eastern and Western in Massachusetts; the Androscoggin and Kennebec in Maine; the Hudson River, the Erie, the Central, Watertown and Rome, in New York; the New Jersey Central; the Providence and Worcester, and the Providence and Stonington; the Cincinnati, Hamilton and Dayton, Lake Shore, and the Cleveland, Columbus and Cincin'i in Ohio; the Louisville and Nashville, and the Lexington and Big Sandy in Kentucky; the Mississippi and Tennessee, and the Memphis and Ohio in Tennessee; the Seaboard and Roanoke in Virginia; the New Orleans, Opelousas and Great Western in Louisiana; the Pacific Railroad in Missouri; the Detroit and Milwaukee in Michigan; the La Crosse and Milwaukee in Wisconsin; the Montreal and Champlain in Canada; and many other roads of more or less importance.

Everywhere these locomotives have abundantly sustained the reputation of the manufacturers, and given entire satisfaction by their trial and service. Their works remain under the direction of Mr. W. W. Fairbanks, as agent, with Mr. P. I. Perrin as draughtsman, both of whom have been connected with the establishment from the start.

Kennebec and Portland Railroad.

The receipts of this road for the year ending Sept. 30, were | $164,516 13
Expenditures | 142,965 26
Excess of earnings over expenses | $21,550 87
Add excess of earnings 1857-8 | 8,019 07
Total excess two years | $29,569 94

ASSETS.

Cash on hand	$7,431 90
Due from Washington Bank	274 00
" Post office department	3,423 52
" Sundry accounts	593 47
" Wood on hand	17,095 05
" Machine shop and stock	1,625 27
	$30,442 94

LIABILITIES.

Due on city and town coupons, not yet presented for payment	873 00
	$29,569 94
Do. 1857-8	165,074 75
Receipts for 1858-9	164,516 13
Loss on receipts last year	$558 62
Saving of expenses on preceding year.	$11,507 25

The debt due at the commencement of the year was, in round numbers, $17,000. This debt has been cancelled, leaving the Trustees liable only for uncalled for coupons to the amount of $873 00, and there is a surplus of nearly $30,000 on hand. The falling off in the receipts this year is only $558.64.

In the current expenditures are embraced the interest on town and city bonds, amounting to $48,000, and payments to a sinking fund of $12,000. Deducting these sums, the net earnings would be $81,550.

South Carolina.

Subscription of the State to internal improvements:

Shares in the South Carolina R. R. Co.	$30,000
" " North-eastern R. R. Co.	220,000
" " Spartanburg & Union R. R.	250,000
" " Charlotte & So. Ca. R.R. Co.	31,700
" " Greenville & Columbia R. R.	348,000
" " Blue Ridge Railroad Co.	800,000
" " Cheraw & Darlington R.R.	100,000
" " Pendleton Railroad Co.	35,000
" " Laurens Railroad Company.	50,000
" " Charleston & Savannah R.R.	270,000
	$2,134,700

Stationery.

Engineers, merchants, manufacturers, etc., will find at the establishment of PORTER FITCH, No. 6 Beekman Street, a general assortment of envelopes, note, letter and cap papers. Account books made to order, and engraving of every description executed in the best manner. Also Printer, Lithographer, etc. Railroad Companies and others are invited to give him a call before purchasing elsewhere. Address PORTER FITCH, No. 6 Beekman Street, New York.

How Railroads Influence the Value of Property.

In 1851 the total value of real estate in Indiana was returned at	$176,894,981
Value returned in 1858	318,430,965
Increase	$141,535,984

This increase of real estate is to be attributed largely to railroads constructed in the mean time, directly and indirectly. *Directly*, by opening remunerative markets for agricultural productions, and *indirectly* by the incentive to increased industry and enterprise, which resulted from the remuneration.

The increase that may be attributed *directly* to the influence of railroads is estimated at $70,000,000. The cost of these railroads have been about $30,000,000; so if they were never to pay anything more than their repairs and running expenses, the investment would show a profit of 133 per cent. in the advance of real estate along their lines. The total taxables of the State are put down as follows:

Real Estate	$318,430,965
Personal Property	141,037,977
Total Taxables	$459,468,942

Ericsson Engines.

A Philadelphia letter says:—"There is a New York novelty to be seen in one of our Chestnut street windows, which draws bigger crowds than any organ grinder, without making a quarter of the noise. It is an Ericsson hot-air engine, about as large as a candle-box, driven by the flame of two gas-burners, and propelling a sewing machine. Ericsson's engines, by the way, for all purposes where less than ten horse power is required, are coming into high favor with machinists here. They cost as much as the steam engine, but they run with safety, cleanliness and economy."

Toledo, Peoria and Burlington Railroad.

We learn from the Lafayette *Journal* that the grading upon this road is nearly finished. The track is laid and in running order, seventeen miles west of Monticello. The track laying from Logansport west is going forward with great alacrity, and it is expected that regular trains will be running over the road in less than three months. The payment of $250,000 of stock subscribed along the line is, by a special agreement made conditional upon the completion and full equipment of the road, before the 1st of January.

Steam Fire Engines.

One of the most interesting features of the Exhibition of the Maryland "State Agricultural Fair," recently held at Powelton, was the trial of Steam Fire Engines: the trial to be final, and to decide which engine should carry off the palm. The principal contending engines were the "Washington," made by Messrs. Poole & Hunt, Baltimore, and the "Hibernia," made by Reaney, Neafie & Co., of Philadelphia. The Washington got up steam in 18 minutes, 30 seconds, and with a maximum pressure of 90 pounds, threw a horizontal stream 249 feet, and vertically 173 feet. Length of hose, 205 feet, 10 inches; nozzle, 1¼ inches. The Hibernia got up steam in 14 min., 21 sec., and with a maximum of 105 pounds of steam, threw a horizontal stream 254 feet; vertically, 178 feet. Length of hose, 203 feet 6 inches; nozzle, 1 5-16. Both the Hibernia and Washington threw their streams over the pole, which is 173 feet. The judges made no decision upon the merits of any of the engines, but will meet again to decide the matter.

Maryland Institute Fair.

The annual exhibition of the Maryland (Baltimore) Institute was opened to the public on the 4th inst. We learn that the increase of new members and renewal of membership has been greater than on any preceding occasion, and there is every indication that the success of this flourishing institution is established on the firmest foundation.

THE
TAUNTON LOCOMOTIVE
MANUFACTURING COMPANY,
TAUNTON, MASS.,

HAVING large facilities, and having had a long experience in the business, are prepared to furnish

LOCOMOTIVES,

EITHER FOR BURNING WOOD OR COAL, OF THE MOST APPROVED CONSTRUCTION.

ALSO ALL KINDS OF

RAILROAD MACHINERY,

STATIONARY ENGINES AND BOILERS,
SUGAR MILLS, SHAFTING, ETC.

W. W. FAIRBANKS, Agent.
HARRISON TWEED, Treas.

Notice to Contractors.

PROPOSALS will be received at the office of J. I Shipman, in the village of Jamaica, Long Island, until the twentieth day of October at noon, for the graduation, masonry and superstructure of the Glen Cove and Roslyn Branch Rail road. The road will be about eleven miles long and presents very desirable work for a contractor. Bids will be received for the whole or any part of the work. Specifications and every necessary information may be obtained at the office.

October 1, 1859. STEPHEN TABER, GEO. J. PRICE, H. W. EASTMAN, } *Committee.*
3t*41 J. I. SHIPMAN, *Chief Eng'r.*

DR. A. MERRIMAN,
DENTIST,
1 Waverley Place, opposite New York Hotel,
NEW YORK.

RAILROAD IRON.

THE undersigned, Agents for leading Manufacturers in Staffordshire and Wales, are prepared to contract for delivery on board ship at Liverpool, or Welsh port.

C. CONGREVE & SON,
13 Cliff st., N. Y.

RAILROAD IRON.

THE subscribers, Agents for the Manufacturers, are prepared to contract for the delivery of **RAILROAD IRON** at any port in the United States or Canada, or at a shipping port in Wales.

WAINWRIGHT & TAPPAN,
Boston, June, 1851. **29 Central Wharf.**

PORTER FITCH,
BLANK BOOK MANUFACTURER,
STATIONER, PRINTER AND LITHOGRAPHER,
No. 6 BEEKMAN STREET,
NEW YORK.

FIRST CLASS **ACCOUNT BOOKS** made to order, and **ENGRAVING** of every description for RAILROAD CORPORATIONS, BANKS and INSURANCE COMPANIES, executed in the **best manner** on **short notice.**

Also—
ENVELOPES,
NOTE, LETTER and CAP PAPERS,
FOR SALE AT LOW PRICES.

Notice to Contractors.

Office of the Little Rock and Fort Smith Branch of the Cairo and Fulton R. R. Co.
Van Buren, Ark., Sept. 10, 1859.

SEALED PROPOSALS for the *Graduation* of the First Division of twenty miles eastward from Van Buren, will be received at this office, until THURSDAY NOON, DECEMBER 1st, 1859. The work is divided into twenty sections of about one mile each, and proposals for either a part, or the whole of this Division may be made; but no bids for less than one section will be considered. Blank forms of Proposals will be furnished on application at this office, by mail or otherwise. Estimates of work done will be made on the first day of every alternate month, and payments made on the first day of the month following; and fifteen per cent. of all estimates will be retained until the completion of the contract. Contractors desiring other terms of payment may bid accordingly, as the above terms are not positively settled.

The Company having a large amount of the finest lands in Western Arkansas, will give preference to those requiring the least proportion of money, and the largest proportion of stock and lands. The Company reserves the right to reject any and all bids at its option.

Plans, profiles and specifications, may be seen, and all desired information obtained, on application at the Engineer's Office in Van Buren.

2m40 JESSE TURNER, President.

Notice to Contractors.

Office of the Little Rock and Fort Smith Branch of the Cairo and Fulton R. R. Co.
Van Buren, Ark., Sept. 10, 1859.

SEALED PROPOSALS for the *Masonry* of the First Division of twenty miles eastward from Van Buren, will be received at this office until THURSDAY NOON, DECEMBER 1st, 1859. No bids for less than the amount of Masonry upon any one section will be considered. Blank forms of Proposals will be furnished on application at this office, by mail or otherwise.

Contractors will state terms of payments, and proportions of money, stock and lands, and amount to be retained by the Company to secure the completion of the contract. The Company reserves the right to reject any and all bids at its option.

Plans and specifications may be seen, and all desired information obtained on application at the Engineer's Office in Van Buren.

2m40 JESSE TURNER, President.

FULTON FOUNDRY AND MACHINE WORKS,
P. F. GEISSE,
WELLSVILLE, OHIO.

STEAM ENGINES of every variety built to order. STEAM BOATS and STEAM FERRY BOATS contracted for in whole.

PUTNAM'S PATENT **Turn-Tables** (a very superior and simple table) of all sizes built to order at very reasonable rates.

Car Wheels of a quality superior to any ever yet made. I am now manufacturing from the best material, and annealed by a process patented by me in February, 1859, which renders them almost equal to wrought iron. Car Wheels, Steam Engines and all kinds of machinery furnished at as low, if not lower rates than can be found elsewhere.

Rights to manufacture Car Wheels under P. F. Geisse's annealing process may be obtained from the Patentee at Wellsville, O., or from T. Culbertson, No. 8 Fourth Avenue, N. Y.

Testimonials from the Superintendents and Master Mechanics of the Cleveland and Pittsburg, Little Miami, and Steubenville and Indiana Railroads, as to the superior quality and durability of these Wheels will be furnished on application.

ROUND OAK IRON WORKS,
STAFFORDSHIRE.
LORD WARD, Proprietor.

MANUFACTURE **RAILS, BOILER PLATES, SHEETS, HOOPS** and **BARS** of every variety.
Address **RICHARD SMITH, Esq., Dudley.**

UNITED STATES OFFICES.
NEW YORK, No. 17 Nassau St.
BALTIMORE, over Farmers' & Mer. Bank.
NORRIS & BROTHER, Agents.

RAILROAD IRON
AND COMMON BARS.

THE undersigned, sole Agents to Messrs. Guest & Co., the proprietors of the Dowlais Iron Works, near Cardiff, South Wales, are duly authorized to contract for the sale of their G. L. Railroad Iron, and Common Bars, on most advantageous terms.

R. & J. MAKIN, 70 Broad st.

WINDOW, PICTURE AND CAR
GLASS.
F. HOPKINS & BROTHER,
IMPORTERS,
193 Pearl St., NEW YORK.

LACKAWANNA
IRON AND COAL COMPANY,
SCRANTON, LUZERNE CO., PA.

BY the completion of the Delaware, Lackawanna and Western Railroad, this Company are enabled to obtain the MAGNETIC ORES from the most celebrated mines in New Jersey, which used in combination with their native ores, produce **a quality of iron not surpassed.**

These Works have been greatly enlarged the past year, and are, therefore, prepared to execute orders promptly for **RAILROAD IRON** of any pattern and weight, **Car Axles, Spikes,** and **Merchant Iron.** They have on hand patterns for **T Rails,** of the following weights per lineal yard, viz.—**25, 30, 36, 40, 45, 50, 60, 62,** and **75** lbs.

Samples of RAILS and MERCHANT IRON may be seen at the office of the Company, **46 Exchange Place,** N. York.

Address **J. H. SCRANTON,** President.
Scranton, Pa.
or **DAVID S. DODGE,** Treasurer,
46 Exchange Place,
NEW YORK.

RAILROAD IRON.

CONTRACTS for **RAILS,** at a fixed price or on commission, delivered at an English port, or at a port in the United States, will be made by the undersigned.

THEODORE DEHON,
10 Wall st., near Broadway, N. Y.
500 tons **T Rails** on hand, 54 to 57 lbs. per lineal yard.

RAILROAD IRON.

THE undersigned, agents for the manufacturers, are prepared to make **CONTRACTS FOR RAILS** delivered free on board at ports in England, or exship at ports in the United States

M. K. JESUP & COMP'Y,
44 Exchange Place.
New York, 1st June, 1859.

A GENTLEMAN who has upwards of 20 years experience in conducting an extensive machine manufacturing business, (as principal) writes a good hand and has a thorough knowledge of accounts and general business routine, wishes an engagement with some established concern where his services would command a fair compensation.

Satisfactory evidence of business capacity and integrity will be furnished.

Address **S.** box 962 Baltimore Post Office. 3m32

METALS for RAILROAD COMPANIES.
LUCIUS HART,
IMPORTER AND DEALER IN **METALS,**
4 and 6 Burling Slip, NEW YORK.

BLOCK TIN.	**SPELTER.**	**BABBITT METAL.**
ANTIMONY.	**PIG LEAD.**	**INGOT COPPER.**

RAILROAD IRON.
WOOD, MORRELL & CO.,

HAVING leased the extensive Works of the **CAMBRIA IRON COMPANY,** situated at Johnstown, Cambria Co., Penna., and purchased all their real estate, are now prepared to execute, at short notice, orders for **RAILS** of any required pattern or weight, on the most liberal terms.

PHILADELPHIA OFFICE, North Penna. R. R. Building, **No. 407 Walnut st.**

MORRIS & JONES & CO.,
IRON MERCHANTS,
MARKET AND SIXTEENTH STREETS,
PHILADELPHIA.

IRON AND STEEL
IN ALL THEIR VARIETIES.

BOILER PLATE,	CAR AXLES,
BOILER RIVETS,	RAILROAD IRON,
CUT NAILS and SPIKES,	PIG IRON, etc.

Having the selling agency of a number of the Rolling Mills, Furnaces and Forges in this State, **orders for any description of IRON** can be executed.
August 16, 1854.

RAILROAD IRON.

THE subscriber is prepared to enter into **CONTRACTS FOR RAILS** delivered at an English port or at a port in the United States.

JAMES TINKER,
54 Exchange Place,
NEW YORK.

Erie Rails, 57 to 58 lbs. per yard, on hand in NEW YORK and NEW ORLEANS.

THE FARNLEY IRON CO.,

Near LEEDS, Yorkshire,

MANUFACTURERS OF

LOCOMOTIVE TIRES,

TIRE BARS,

BOILER PLATES, ETC.

The undersigned are prepared to execute orders for

TIRES,

Manufactured at these celebrated Works,

OF ALL SIZES.

A STOCK CONSTANTLY ON HAND.

The quality of the **FARNLEY IRON** is precisely the same as that of **LOW MOOR** and **BOWLING**, being from the same bed of mineral.

For sale, **at manufacturer's prices**, by

M. K. JESUP & COMP'Y,
44 Exchange Place, New York,
SOLE AGENTS for the UNITED STATES and CANADAS.

RAILROAD IRON.

THE undersigned, having been appointed Agents for Messrs. BOLCKOW & VAUGHAN, proprietors of the

ESTON, MIDDLESBRO', and WITTON PARK
IRON WORKS, YORKSHIRE, ENG.,

are prepared to contract for the sale of **RAILROAD IRON** of a superior quality and on the most advantageous terms.

MEAD & BELL,
17 William st., N. Y.

RAILROAD IRON.

The Crescent Manufacturing Company

WHEELING, VA.,

ARE now prepared to execute, at short notice, orders for Rails of any required pattern and weight, and to re-roll old rails, on the most liberal terms. Address

N. WILKINSON, Sec'y,
WHEELING, VA.

8tf

RAILROAD IRON.

THE undersigned, Agents for the Manufacturers, are prepared to contract to deliver, free on board at shipping ports in England, or at ports of discharge in the United States,

RAILS OF SUPERIOR QUALITY,

and of weight or pattern as may be required.

VOSE, LIVINGSTON & CO.,
9 South William st.

NEW YORK, Aug. 1, 1858.

RAILROAD IRON.

THE RENSSELAER IRON COMPANY,
TROY, N. Y.,

OFFER Rails of their own manufacture deliverable as may be desired by purchasers.

OLD RAILS

received in exchange for new, or for re-manufacturing.

JOHN A. GRISWOLD, Agent,
TROY, N. Y.

New York Agency:
RUSSING, CROCKER & DODGE,
33 Cliff St.

CAST STEEL,

Of First Quality and Warranted.

BAR, TOOL, DRILL, AND DIE STEEL.
LOCOMOTIVE, CAR AND CARRIAGE CAST STEEL.

CAR SPRING STEEL,

For superior to the ordinary kind.

FROG PLATES, POINTS.

Saw, File, Cutlery, Rake, Hoe, Axe and Plough Steel. Gun Metal. Wire and Machinery Steel.

ORDERS FILLED PROMPTLY AND AT LOW PRICES.

SALTUS & CO.,
45 Cliff st., New York.

IRON BOILER FLUES.

LAP-WELDED BOILER FLUES,

1¼ to 7 inches outside diameter, cut to definite length, 2 to 20 feet as required.

Wrought Iron Welded Tubes,

From ⅛ to 5 inches bore, with Screw and Socket Connections, T's, L's, Stops, Valves, Flanges, etc., etc.

MANUFACTURED AND FOR SALE BY

MORRIS, TASKER & CO.,

PASCAL IRON WORKS.

Established 1821.

WAREHOUSE—209 SOUTH THIRD STREET,

PHILADELPHIA.

STEPHEN MORRIS, THOS. T. TASKER, JR. CHAS. WHEELER, JR., STEPHEN P. M. TASKER.

RAILROAD IRON.

THE subscribers are prepared to contract for **RAILS** delivered at an English port or at a port in the United States. Also for all descriptions of

RAILROAD EQUIPMENTS

upon favorable terms.

JOHN W. HULL & CO.,
No. 41 Exchange Place, NEW YORK.

FAY, WOOD & CO.,

214 Pearl st., NEW YORK,

MANUFACTURERS OF

WHITE LEAD, ZINC,

COPAL VARNISHES AND

JAPANS.

Also, PUTTY, PAINTS and COLORS.

THE RAILROAD IRON MILL COMPANY,

CLEVELAND, OHIO,

MANUFACTURERS EXCLUSIVELY OF

RAILROAD IRON.

THIS is a new ROLLING MILL, having been working only eighteen months, and confined to work for roads of this line between Buffalo and Chicago in re-rolling old Rails the capacity is Forty Tons per day. It is well situated to receiving old Rails, either by Railroad or Lake.

Orders are now solicited

From Roads in other sections of the country; and work will be made with New Iron in the heads, if desired.

Apply to

ALBERT G. SMITH,
President of the Incorporation

February, 1858.

G. B. GORDON,

IMPORTER AND JOBBER OF

HOUSE-FURNISHING HARDWARE,

MANUFACTURER OF THE

"OLD EMPIRE"

COFFEE POT,

WATER COOLERS, BATHS,

PLAIN JAPANNED AND STAMPED

TINWARE.

DEALER IN

Tinman's Tools,
Copper Bottoms,
Brass Kettles, etc.

258 PEARL STREET,

ADJOINING U. S. HOTEL,

NEW YORK.

THE **Cheapest** and most DURABLE **ROOFING** IN USE. Sent to any part of the country with *directions for application.*

GUTTA PERCHA CEMENT ROOFING.

SPECIMENS and *references* can be seen, and any desired information obtained on application, by *letter* or in *person*, at our OFFICE,

510 BROADWAY, N. Y.
(Opposite the St. Nicholas Hotel).
JOHNS & CROSLEY.

THE LAWRENCEVILLE MANUF'G

CEMENT COMPANY,

OFFICE 96 WALL ST,

NEW YORK.

THIS Company manufacture **ROSENDALE HYDRAULIC CEMENT** of a superior and uniform quality, and are constantly receiving it **fresh** from their Works at Rosendale. Particular attention paid to grinding **fine**, and packing in superior casks. We warrant it to set under water, and attain a hardness excelled by no Cement manufactured. It has met the approval of Government, and we are at present supplying the fortification now in course of erection, together with Water Works and Public Buildings.

For sale upon favorable terms by addressing.

WM. N. BEACH, President.
CHAS. E. LAWRENCE, Sec'y.

CEMENT, PLASTER, ETC.

THE HUDSON RIVER CEMENT CO.

HAVE commenced manufacturing for the season, and can now furnish a very superior article of fresh **Rosendale Cement, Calcined Plaster, Farmers' Plaster** and **Marble Dust.** Address

HUDSON RIVER CEMENT COMPANY,
12 Jersey City, N. J.

Rosendale Hydraulic Cement.

THE NEWARK AND ROSENDALE CEMENT COMPANY are now receiving **fresh from the Mills** their approved ROSENDALE CEMENT, warranted **pure** and **free from quick lime,** and which has given such **general satisfaction** in the various government and other public works in which it has been used. Purchasers and shippers should be careful to get the **genuine ROSENDALE CEMENT,** branded "NEWARK AND ROSENDALE," "H. WILDE." This Cement does not swell and burst the hoops when stored in warm climates. It is packed in tight **kiln dried barrels,** and is specially adapted for safe shipping on long voyages. Terms reasonable, which may be known by addressing,

JOHN H. STEPHENS, President, Newark, N. J., or
HENRY WILDE, Secretary, 90 Wall st., N. Y.

DELAFIELD & BAXTER'S,

Late OGDEN & DELAFIELD,

ROSENDALE CEMENT.

WE are prepared to enter into arrangements for supplying our CEMENT for public works, or other purposes. We **warrant it equal in every respect** to any manufactured in this country. It attains a great degree of hardness, sets immediately under water, and is a **superior article** for masonry coming in contact with water, or requiring great strength.

For sale in tight barrels, well papered, on application at their office, by **DELAFIELD & BAXTER,** 104 Wall st.

The above CEMENT is used in most of the fortifications building by government. 45

THE IMPERIAL LUBRICATING OIL,

MANUFACTURED BY

J. C. HULL & SONS,

(Formerly W. Hull & Son,)

Nos. 108, 110, 112, 114, 116 & 118 Cliff St.,

NEW YORK,

For Railroads, Machine Shops, Steamships, Mills, etc.

THIS OIL having been before the public for a **long time,** and having been **extensively used** in different parts of the country, and on each occasion meeting with **unqualified approval,** renders the manufacturers confident when making the following claims:—

1st. **Its first cost is much less** than that of any Oil in use, of known merit or acknowledged worth.

2nd. It will **not in any way gum** or **clog up** any journal or bearing, **all the gum in the Oil being entirely decomposed.**

3rd. It will keep all journals and bearings **cool, clean** and **bright** as new, thus not only **saving wear and tear,** but **saving also** no inconsiderable amount of **motive power.**

4th. It is fully as **durable** as any Oil in the market, and consumers are invited to make their experiments on such journals as are inclined to heat up.

5th. It is **sweet** and **clean,** and entirely **free from all odor or unpleasant smell.**

6th. It will remain limpid at as low a temperature as sperm.

CERTIFICATES from a large number of **Railroad** and **Steamboat officers,** also, prominent **Manufacturers** and **Machine Builders,** can be seen by application as above.

TAW & BEERS,

DEALERS IN

Sperm, Whale and Elephant Oils,

Adamantine Car and other Candles,

AND MANUFACTURERS OF

TAW'S LUBRICATING

GREASE

FOR RAILROAD CARS AND HEAVY MACHINERY.

THIS celebrated **GREASE** has been in use upwards of **Ten years;** and is in the opinion of **FORTY RAILROAD COMPANIES,** whom we regularly supply,

The Cheapest and Best Lubricator in use.

Parties ordering, will please state the kind of box, or description of machinery.

TAW & BEERS,
18 SOUTH WATER ST.
Philadelphia.

OIL! OIL!

PEASE'S

IMPROVED ENGINE and SIGNAL OIL,

FOR

RAILROADS, STEAMERS, PROPELLERS,

AND FOR EVERY CLASS OF

MACHINERY AND BURNING.

PRACTICAL TESTS, by Engineers and Machinists of Thousands of Gallons, **prove** this Oil to be **superior** for **Burning,** and **TWENTY-FIVE** per cent. more **durable** than Sperm Oil, for Lubricating, and the **only** Oil that is in all cases **reliable,** that will keep bearings **cool,** and

WILL NOT GUM.

In no case has it failed to meet the approval of the consumer.

The *Scientific American* and *Manufacturer's Journal,* after testing this Oil, pronounce it **superior** to any other for Lubricating.—For sale **ONLY** by the Inventor

F. S. PEASE, 61 Main st., BUFFALO.

Reliable orders filled for any part of the United States or Europe.

UNION

CAR WHEEL & TIRE WORKS,

JERSEY CITY, N. J.

MOORE & ADAMS,

MANUFACTURERS OF

DOUBLE and SINGLE PLATE

CAR, ENGINE AND TRUCK WHEELS,

MANUFACTURERS AND PROPRIETORS OF

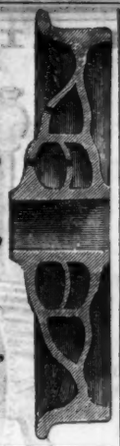
MOORE'S PATENT

TRIPLE PLATE CAR WHEEL.

CHILLED LOCOMOTIVE TIRES,

Made from the best Charcoal Cold Blast Iron.

HIRAM W. MOORE,
GEORGE ADAMS.



G. G. LOBDELL. H. S. McCOMBS. D. P. BUSH.

BUSH & LOBDELL,

WILMINGTON, DELAWARE,

MANUFACTURERS OF

CHILLED WHEELS

AND

TIRES,

FOR RAILROAD CARS

AND

Locomotive Engines,

ARE PREPARED TO EXECUTE PROMPTLY

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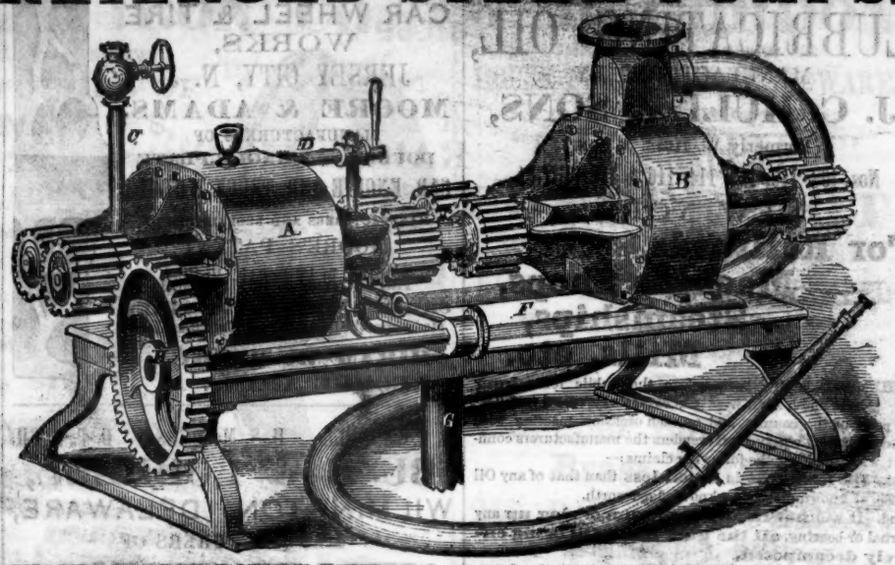

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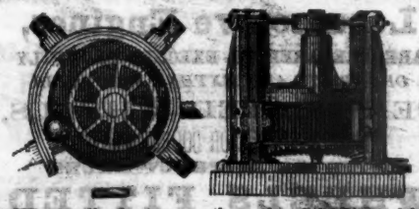
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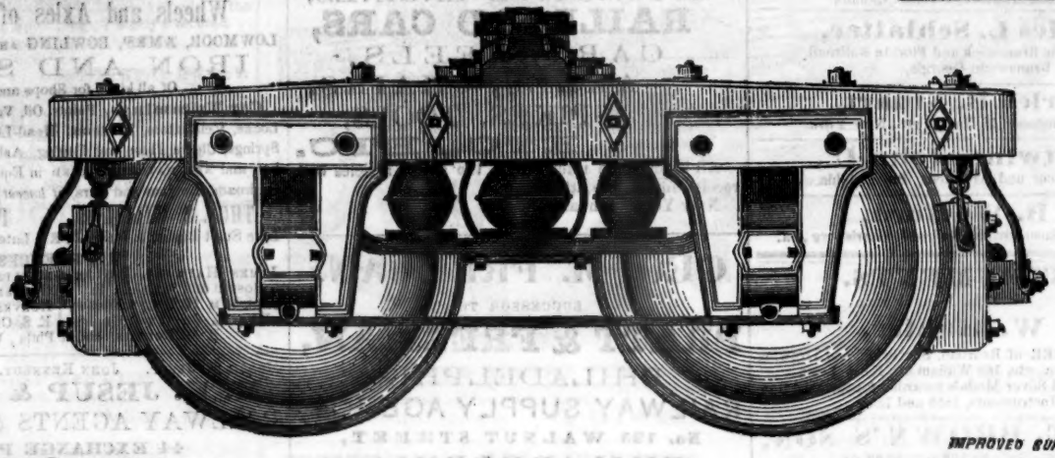

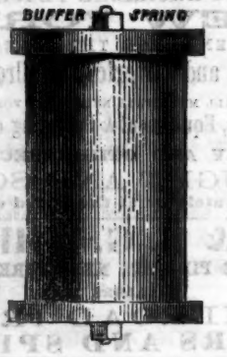

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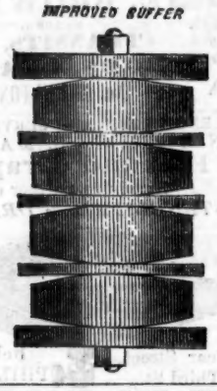

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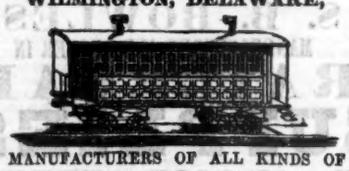

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